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SMITHSONIAN INSTITUTION

UNITED STATES NATIONAL MUSEUM

# REPORT ON THE PROGRESS AND CONDITION OF THE UNITED STATES NATIONAL MUSEUM FOR THE YEAR ENDED JUNE 30, 1943

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UNITED STATES NATIONAL MUSEUM,
UNDER DIRECTION OF THE SMITHSONIAN INSTITUTION,

*Washington, D. C., October 1, 1943.*

SIR: I have the honor to submit herewith a report upon the present condition of the United States National Museum and upon the work accomplished in its various departments during the fiscal year ended June 30, 1943.

Very respectfully,

ALEXANDER WETMORE,
*Assistant Secretary; Director, U. S. National Museum.*

DR. CHARLES G. ABBOT,
*Secretary, Smithsonian Institution.*

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# REPORT ON THE PROGRESS AND CONDITION OF THE UNITED STATES NATIONAL MUSEUM FOR THE FISCAL YEAR ENDED JUNE 30, 1943

By ALEXANDER WETMORE
*Assistant Secretary of the Smithsonian Institution, Director of the United States National Museum*

## OPERATIONS FOR THE YEAR

### APPROPRIATIONS

FUNDS for the operation of the United States National Museum for the year ended June 30, 1943, were made available in the Executive and Independent Offices Act for the fiscal year 1943 approved June 27, 1942. Salaries for the administrative and technical staff, the subprofessional staff, and the clerical, watch, labor, and char forces were covered by the appropriation "Preservation of Collections, Smithsonian Institution," the amount available for these purposes being increased by Public Law 132, approved July 12, 1943. Moneys for the maintenance and operation of the Museum buildings were provided by an allotment under the appropriation "General Expenses, Smithsonian Institution," and printing and binding for the Museum were covered by an allotment from the appropriation "Printing and Binding, Smithsonian Institution." The appropriation and allotments for the work of the Museum, including maintenance and operation of the buildings, are summarized as follows:

| | | |
|---|---|---|
| Preservation of collections (appropriation) | $646,206 | |
| Public Law No. 132, approved July 12, 1943 | 53,040 | |
| Available for expenditure | | $699,246 |
| Maintenance and operation (allotment) | | 150,384 |
| Printing and binding (allotment) | | 43,000 |
| Total available for year | | 892,630 |

Changes in the various items are explained as follows:

In the appropriation for Preservation of Collections the funds exceeding those of the preceding year included $10,088 to cover added salary costs resulting from the operation of Public Law 200 (Ramspeck Act). Public Law 132 provided an additional $53,040 for added cost of overtime and increased salaries resulting from the operation of Public Law 694 (the custodial pay bill), which changed the basic salaries of the char force from 50 cents to 65 cents an hour, of unskilled laborers from $1,080 to $1,200 per annum, of guards from $1,200 to $1,500 per annum, of guard sergeants from $1,320 to $1,680 per

annum, and of guard lieutenants from $1,500 to $1,860 per annum, with miscellaneous small increases for members of the mechanical staff. This new schedule of salaries was a most welcome change, since it has operated to decrease the turn-over in personnel that has been one of our continuing troubles for many years.

For Maintenance and Operation there was an increase of $524 to provide for salary increases under Public Law 200.

The miscellaneous expenditures for the Museum dropped sharply during the year from a 3-year average of about $92,000 to $65,000. This decrease was occasioned by the difficulty of obtaining supplies and materials under the existing priorities required by the wartime economy of the Nation.

During the year a ceiling was placed on the number of employees for the Smithsonian Institution, reducing these from 478 to 408. Part of this reduction was absorbed by changing the char hours from 20 to 48 hours a week, and a large part of the remainder was covered by existing vacancies. It was necessary further than this to drop four guard and six laborer positions. Under normal conditions this would have affected the Museum most seriously, but owing to the fact that the present manpower shortage has made it impossible at the moment to fill many positions in which scientific skill is required the actual loss for the time being was not so great as the figures would indicate. The Museum is operating, however, with greatly restricted personnel, and while it may be possible to do this for the period of the war the immediate rebuilding of our staff will be an urgent matter after the war, unless our work is to suffer permanently.

The allotment for printing and binding available was the same as in the preceding year, and under present conditions this is adequate, since the Institution has adopted the policy of restricting its publications almost entirely to studies that relate to the war effort, to knowledge of strategic areas, or to its work in cooperation with the scientists of the other American republics. Following the war, however, when the scientific staff of the Institution resumes its full-scale research program, more printing funds will be required to make the results of their investigations available to the public and to other research workers.

The need for more space for the Museum's collections remains one of our most difficult immediate problems, though it is one that cannot be remedied during the war. While the Institution has discontinued its usual extensive program of field explorations for the duration of hostilities, specimens that must be given adequate protection continue to come to us constantly as gifts. It is becoming apparent also that men in the armed forces will contribute a great deal of material to our collections, especially in the fields of anthropology and biology. In fact, such collections, doubly important since they carry both scientific and sentimental value, are now beginning to come to hand. It is entirely fitting that these things secured by our men who are abroad

should find a permanent home in the National Museum. There is also a certainty that the collections in American history, especially in the departments relating to military and naval affairs, will receive large accretions.

The present disturbed world conditions place upon the Museum the necessity for giving added care to its collections. Destruction and damage to museums abroad are constantly adding to the value of our own great collections. The military occupation of wide areas, with the great disturbance of natural conditions that ensues, also indicates that we must give constant thought to the materials we now possess, since any possibility of their replacement becomes increasingly jeopardized. Our responsibilities in this connection are such that a statement made in the report of the preceding year deserves repetition:

"Under such circumstances our treasures in plant and animal life, living and fossil, in anthropology, in history, in art, and in engineering and the industries demand the most detailed and specific care so that, under the stress of the moment, they may not suffer neglect and damage. They comprise a trust that must be preserved for the culture and life of future generations in our nation."

Plans for additional housing are kept under current consideration in order that they may be ready for presentation in any postwar building program that may be developed.

## COLLECTIONS

In spite of the war, additions to the collections continued to come through gifts from interested individuals and by exchanges and at about the usual rate for recent years. The total number received, in fact, has been surprisingly large in view of curtailment in field work on the part of our staff that ordinarily brings large series of specimens. Though less than last year the total is within the usual recent range of variation from year to year.

New material came in 1,177 separate accessions, with a total of 230,231 specimens, distributed among the five departments as follows: Anthropology, 2,514; biology, 213,823; geology, 9,725; engineering and industries, 2,266; and history, 1,903. The last shows an actual increase over the fiscal year 1942.

For examination and report 681 lots of specimens were received, a large part of these being botanical and geological in nature, with many specimens, however, in other groups. A part of these the Museum returned to the senders when examination was concluded, some were consumed or otherwise destroyed during identification and analysis, and some were presented by the senders as additions to our permanent collections.

Gifts of duplicates to schools, museums, and other institutions numbered 2,317 specimens. Exchanges of duplicate materials with other institutions and individuals amounted to 3,689 specimens, and

752 specimens were transferred to other governmental agencies. Loans for scientific study by investigators outside of Washington totaled 19,600 specimens. The summary that follows, of entries now included in the Museum catalogs in all departments, has been adjusted in the case of the division of history to include some materials not previously counted:

| | |
|---|---|
| Anthropology | 711, 117 |
| Biology | 13, 752, 348 |
| Geology | 2, 683, 608 |
| Engineering and industries | 138, 129 |
| History | 525, 045 |
| Total | 17, 810, 247 |

## EXPLORATIONS AND FIELD WORK

Field explorations for the year were concerned in the main with matters connected with the war effort, or with commitments dating back to the pre-war period. With our usual program curtailed, the scope of the investigations has been changed measurably, though as always valuable results in a variety of directions have been achieved.

In pursuance of the program for the furtherance of cultural relations with scientists in the Latin American Republics in cooperation with the Department of State, three members of the department of biology, Dr. Remington Kellogg, curator of mammals, Ellsworth P. Killip, associate curator of plants, and Dr. Waldo L. Schmitt, curator of marine invertebrates, visited South America for periods of approximately 3 months each.

Dr. Kellogg left Washington on March 2, proceeding to Rio de Janeiro, Brazil, and returned on May 15, 1943. In Brazil he spent most of his time working in collaboration with members of the staff at the Museu Nacional at Rio de Janeiro, with additional contacts made at the Departamento de Zoologia at São Paulo and at the Museu Goeldi at Belém. The work of field stations and laboratories engaged in the study and control of tropical diseases was observed, particular attention being paid to research work involving Brazilian mammals suspected of being, or known to be, the hosts of vectors of transmissible diseases. Through the friendly cooperation of the Fundacão Rockefeller, Dr. Kellogg was enabled to spend a week at its yellow-fever field station near Terezopolis in the Serra dos Orgãos.

Mr. Killip was occupied during March, April, and most of May in Venezuela. Part of the time was given to field work and part to work with Dr. Henri Pittier, Director of the Servicio Botánico, and his associates, in the identification of large plant collections recently made in little-known parts of the republic. Short collecting trips were made to Santa Lucía in the State of Miranda, Rancho Grande in the Parque Nacional, Barquisimeto in the State of Lara, and El Junquito in the mountains near Caracas. At the invitation of O. E. Nelson, in charge of the Venezuelan office of the Rubber Reserve

Corporation, Mr. Killip accompanied a rubber-investigation party to the Río Paragua, a river rising in the Pacaraima Mountains and flowing northward and then eastward to the Río Caroní. Most of the plant collecting, aggregating about 500 numbers, was done between the town of La Paragua and the Cerro Guaiquinima, a region never before explored botanically.

Dr. Schmitt, after some delay due to congested air travel, left Miami, Fla., on April 13 for Brazil, Uruguay, and Argentina, and returned to Washington on June 30, 1943. In these countries he consulted with members of the staffs of various scientific institutions and spent some time examining collections, particularly of fresh-water crustaceans, some of which have considerable economic importance. In Brazil he visited the Museu Nacional in Rio de Janeiro, the University of São Paulo and the Departamento de Zoologia at São Paulo, and the Museu Paranaense in Curityba. In Uruguay his itinerary included the Museo Nacional, the Museo Instituto Geológico del Uruguay, the Museo de Pedagógico, and the Museo de Enseñaza Secundaria de Universidad, all in Montevideo, and also the museum of the Liceo in Paysandú. In Argentina he examined collections and visited the staff of the Museo Argentino de Ciencias Naturales and the University at Buenos Aires, the La Plata Museum at La Plata, the Museo Cornelio Moyano and the Universidad de Cuyo, both at Mendoza, the Universidad de Córdoba at Córdoba, and the Universidad de Tucumán at Tucumán. The director and staff members of the laboratories of the Dirección Regional de Paludismo assisted him on numerous occasions throughout northern Argentina, particularly in Tucumán, Salta, and Jujuy. His field work, accomplished when time and other obligations permitted, included studies in Brazil at Alto da Serra, São Paulo, and at several localities in the vicinity of Curityba, Paraná, in Uruguay at Paso de los Toros, Salto, and Paysandú, and in Argentina at Mendoza, Tucumán, Salta, San Lorenzo, and Quijano.

Philip Hershkovitz, present incumbent of the Walter Rathbone Bacon Traveling Scholarship, which had been granted before the outbreak of war, between June 30, 1942, and April 16, 1943, worked mainly in northeastern Colombia, establishing camps successively at El Salado, at Aguas Blancas, Aguas Verdes, and Palmarito on the Río Guaimaral, at Guacamayo on the Río César, at Villanueva in the Sierra Negra, at Fonseca and Padilla in the Sierra de las Marimondas of the eastern Andes, and lastly near El Orinoco on the Río César, all in the Department of Magdalena, Colombia. More recently Mr. Hershkovitz moved camp to Norosí at the north end of the Cerros de la Honda in the Department of Bolívar.

Under the W. L. Abbott fund of the Smithsonian Institution, M. A. Carriker, Jr., continued work in northeastern Colombia, and Walter A. Weber, assistant curator of birds, accompanied the archeological expedition sponsored jointly by the Smithsonian Institution and the

National Geographic Society to Tabasco, southeastern Mexico. While in Mexico City Mr. Weber availed himself of the opportunity of visiting the Instituto de Biología.

Dr. W. F. Foshag, curator of mineralogy and petrology, continued work in Mexico, where he is in charge of the strategic mineral program for the U. S. Geological Survey. In the course of these investigations he has obtained materials for our collection, some of which have been delivered to the Museum. The bulk, however, remains in Mexico pending shipment to Washington after the emergency.

Late in July, Prof. A. S. Warthin, Jr., of Vassar College, and Dr. G. A. Cooper, associate curator of invertebrate paleontology, left for the Midwest to study Devonian rocks in Illinois and adjacent States. The purpose of the trip was to correlate isolated areas of Devonian exposures in southern, central, and northern Illinois with the better-known sequences in central Missouri and eastern Iowa. About 10 days were spent in Jackson and Union Counties, Ill., making sections and collecting fossils, after which the party moved to Ste. Genevieve County in southeastern Missouri. From this area they went to Calhoun County, Ill., to see the thin stratum of Middle Devonian rocks exposed there. Thence they moved to central Missouri to the vicinity of Fulton and Columbia. The next areas studied were those in northeastern Missouri in Ralls County, the section in eastern Iowa from Muscatine to Davenport, and the adjacent sequence in the vicinity of Rock Island, Ill. Early in September, following the return of Dr. Warthin to the East, Dr. Cooper visited the University of Iowa and from there continued to the University of Wisconsin. While at Madison he made a short trip to Port Washington and Milwaukee to examine Devonian outcrops in these neighborhoods, thence returning to Urbana, Ill., to study fossils and confer with the Illinois State geologists. He was ordered then to southeastern Missouri not far from Cape Girardeau to report on a deposit from which several bones of a dinosaur had been taken.

Later in the year under the cooperative work between the Department of State and the Smithsonian Institution, and as the result of a special request by Ing. Luis Flores C., of the Instituto Geológico de México in Mexico City, Dr. Cooper was detailed to confer with Mexican geologists and then to investigate Paleozoic sequences in the neighborhood of Caborca in northwestern Sonora. He arrived in Mexico City on March 28 and for 3 weeks was occupied with preparations for the trip north. On April 17 Dr. Cooper and Ing. Arellano left Mexico City for Caborca, arriving 3 days later. The next 5 weeks were devoted to stratigraphic studies in the small hills lying chiefly to the west of Caborca and extending as far as El Antimonio. During these investigations they discovered several long sequences of Cambrian rocks and good sections of Mississippian and Permian strata. On May 28 they left Caborca and returned to Mexico City, where 3

weeks were devoted to conferences with Mexican geologists. Five days were given to a visit to the new volcano, Parícutin.

Only brief mention was made in last year's report of the field expedition of the Smithsonian to Wyoming under the direction of Curator C. W. Gilmore, since it extended well into the present fiscal year. Accompanied by George F. Sternberg, George B. Pearce, and Alfonso Segura, the latter of the Museo Nacional, San José, Costa Rica, the party spent nearly 2½ months in the systematic search of the Hat Creek Basin area, Niobrara County, Wyo., for Oligocene vertebrate fossils. This work resulted in assembling a collection of 236 lots of specimens having a weight of 6,050 pounds, among which were several specimens of outstanding merit. Combined with the collection made here in 1932, this gives the Museum for the first time an adequate representation of this important fauna.

Dr. Waldo R. Wedel, associate curator, division of archeology, was detailed to the Bureau of American Ethnology from January 16 to June 1, 1943, in order to assist M. W. Stirling, Chief of the Bureau, in archeological excavations near La Venta, in the State of Tabasco, Mexico. These excavations, constituting an important program of research among the Pan American republics, were sponsored jointly by the Smithsonian Institution and the National Geographic Society.

## THE MUSEUM IN WARTIME

In the 12 months covered in the present account the continuance of our public exhibitions and the change in hours to allow our public halls to be open all day Sunday have been abundantly justified. Although naturally there has been a decrease in the total number of visitors below that normal for times of peace, the 1,355,269 persons recorded at our doors during the year indicate the great interest that exists in our public displays. The number is decidedly more than the total population of the Greater Washington area, indicating that, at the present time when gasoline rationing and crowded travel lines prevent ordinary journeys, the National Museum has been a favored spot by those who now are in Washington. Among our visitors an average of more than 1,000 each day are men and women in uniform, the number being especially large on Saturday and Sunday when many are in the city on week-end furloughs.

Last year's report indicated steps taken for adequate safeguard for our collections and operations during the period that the Nation will be at war. These precautions have gone forward. The work of safeguarding employees, visitors, and the buildings and their contents was started under the supervision of Carl W. Mitman, head curator of engineering and industries, soon after the United States entered the war. On August 17, 1942, the Secretary of the Smithsonian Institution appointed Frank M. Setzler as general defense coordinator of all Smithsonian buildings on the Mall,

excluding the National Gallery of Art. Since the declaration of war, service units have been organized, a program of training has been initiated among the various groups of employees, air-raid alarm systems have been installed, fire-fighting, air-raid, and first-aid equipment procured, air-raid shelters designated, and complete blackout facilities where necessary established. During the year, in cooperation with the District of Columbia, 5 practice air-raid drills were held during the daytime, and 10 practice blackout drills were held at night. A few practice drills were held independently of the city-wide drills. Twice during the year our air-raid defense organization, consisting of approximately 212 employees, was given instructions in the use of the fire hoses, chemical fire extinguishers, and the portable fire pumps. Numerous incidents were prescribed during the daytime air-raid drills which provided practice for the stretcher and first-aid squads. All appropriate protective measures as outlined in the official "Air Raid Protection Code" under stages A and B have been fulfilled. All these arrangements have naturally imposed an extra amount of labor on the staff; without their willing cooperation much of this work could not have been accomplished.

Mention was made in the last report of the removal of certain collections for storage outside our buildings. Some additional materials have been added to these.

Throughout the year members of the staff have been occupied with considerable work connected with the war effort, either through direct contact with various war agencies or through the Ethnogeographic Board. This has included "spot" information in various fields, research, and experiment. The variety of these matters is indicated by the following enumeration of some of the items on which data were requested: Camouflage plants; natural vegetation of specific regions; illustrations of poisonous plants and of emergency food plants and data regarding them; destruction of mosquito-harboring epiphytes; distribution of certain plants of known economic importance; botanical exploration; the use of land, fresh-water, and marine animals for food, the palatability of the flesh thereof, and methods of capture; the serviceability of hides and skins for various purposes; disease transmission; noxious, poisonous, or otherwise dangerous animals; intermediate hosts of animal and human parasites; aid in the preparation of survival manuals and other military and naval handbooks; distributional lists of insects and other animals of medical importance; outlines for insect surveys in foreign areas; instruction in mosquito identification; collection and preservation of specimens, especially those of medical importance; supplying duplicate sets of insect material not otherwise readily obtainable for the use of Army and Naval medical schools; biological and oceanographic problems; marine fouling organisms; bibliographic surveys; recommendations regarding personnel.

Assistance has been given in the identification of tribal culture

patterns chiefly of the island peoples of the west Pacific area and of continental southeastern Asia. Other information provided, in this instance obtained from our photographic files, related to the need of our aviators and soldiers to recognize religious caste markings and, to assist in the orientation of aviators, the types of house construction in various parts of southern Asia. A mass of information directly based on our collections was given to such agencies as the Board of Economic Warfare and the War Production Board, bearing directly on the development of the use of substitute materials for civilian use.

Various articles describing the more remote peoples and their cultures were prepared and published.

Though it cannot be told here or now, the story of the Museum's participation in this war is one in which we can all take pride.

## VISITORS

Visitors to the Museum buildings during the year totaled 1,355,269, somewhat less than the number recorded for the previous year, 2,042,817. This decrease can, of course, be attributed to the rationing of gasoline, including the curtailment of pleasure driving and vacation travel, the elimination of sightseeing busses, all resulting from the war, and the application of the American public to its wartime activities. The largest monthly attendance was during August 1942, with 163,413 visitors, and the second largest was during July 1942, with 136,111. In table 1 will be found the number of visitors during each month of the year.

From November 1, 1942, to June 30, 1943, a separate count was made of members of the armed forces who visited the buildings during the first 7 days of each month. This count served to show that attendance by service people averaged 25 to 35 percent of the total number of visitors.

TABLE 1.—*Visitors to the Museum buildings during the year ended June 30, 1943*

| Year and month | Smithsonian Building | Museum buildings | | | Total |
|---|---|---|---|---|---|
| | | Arts and Industries Building | Natural History Building | Aircraft Building | |
| *1942* | | | | | |
| July | 25, 782 | 54, 960 | 39, 841 | 15, 528 | 136, 111 |
| August | 30, 797 | 64, 137 | 49, 594 | 18, 885 | 163, 413 |
| September | 25, 230 | 49, 981 | 42, 184 | 12, 987 | 130, 382 |
| October | 21, 766 | 43, 001 | 38, 622 | 11, 031 | 114, 420 |
| November | 21, 118 | 41, 014 | 33, 809 | 11, 663 | 107, 604 |
| December | 12, 499 | 24, 875 | 22, 432 | 7, 076 | 66, 882 |
| *1943* | | | | | |
| January | 16, 229 | 33, 652 | 29, 911 | 9, 010 | 88, 802 |
| February | 18, 232 | 31, 439 | 29, 406 | 9, 660 | 88, 737 |
| March | 21, 696 | 41, 391 | 31, 087 | 12, 519 | 106, 693 |
| April | 26, 399 | 51, 102 | 38, 062 | 15, 348 | 130, 911 |
| May | 24, 576 | 45, 164 | 36, 393 | 14, 000 | 120, 133 |
| June | 19, 793 | 36, 194 | 32, 714 | 12, 480 | 101, 181 |
| Total | 264, 117 | 516, 910 | [1] 424, 055 | 150, 187 | 1, 355, 269 |

[1] Not including 2,800 persons attending meetings after 4:30 p. m.

## LIBRARY

In much the same way that industrial byproducts are often found to have unexpected values and uses, the books and periodicals accumulated through the years to serve the curators of the Museum in their care and study of the collections in their custody have been discovered to contain information useful and sometimes of unique importance to the war agencies. During the present fiscal year the Museum library has probably been used for more different kinds of research, and has answered questions on a greater variety of subjects, than at any other period in its history, but in almost every case with an identical ultimate objective—the winning of the war.

The exact nature of the reference questions asked and answered, the subjects of the bibliographical lists made for special purposes, and the reasons why certain books were borrowed cannot, for obvious reasons, be given, but the list would be an interesting and a surprising one. Representatives of about 35 different branches of the war agencies have called for assistance or have come in person to do research, and two-thirds of the 687 loans of books to outside libraries were made to war-agency libraries. Most of the use of the library by the members of the curatorial staff of the Museum, too, was connected in some way with the war, either for war projects in which they themselves were engaged, or in which, as special consultants, they were giving help to others. Outside the processes involved in the acquisition, cataloging, and other preparation of books and periodicals for use, which cannot be neglected without serious crippling of library service, a very large part of the time of the library staff may be said to have been devoted to giving aid in the war effort.

One painstaking and useful piece of bibliographical work fortunately can be given special mention. In connection with the proposed union list of Russian serial publications to be compiled by the Special Libraries Association, Mrs. Elisabeth H. Gazin, associate librarian, prepared a list of the 157 titles of Russian periodical sets in the library, giving the exact holdings of the library in each set.

There were a number of especially notable accessions during the year. One of the largest and most important gifts was a collection of 350 books, many of them rare and beautiful volumes, on arms and armor, presented by Ralph G. Packard, of Morristown, N. J., to accompany the collection of arms and armor that he gave to the Museum.

Another special collection of great usefulness was the late Dr. Frank Smith's bequest of his working library of oligochaete literature, 1,103 pieces in all. This has been assigned to the sectional library in the division of marine invertebrates, where it is particularly valuable because it so well supplements the slide and specimen collection that Dr. Smith gave to the Museum during his lifetime.

The library was also so fortunate as to be able to secure about 250 volumes and 2,300 pamphlets, mostly on the subject of reptiles, from the library of the late Dr. Leonhard Stejneger, formerly head curator of the department of biology.

From the library of the late George P. Engelhardt came 45 volumes and 7 pamphlets as a gift to the sectional library in the division of insects.

A unique gift presented by Dr. Stuart H. Perry was a five-volume set of photomicrographs of meteoric irons, to accompany the photographic plates in the division of minerals. Deposited in the Museum library was the invaluable gift from the Linnean Society of London to the Smithsonian Institution of the microfilm records of the Linnean collections and manuscripts. All the actual specimens in the Linnean herbarium are covered in the 60,000 exposures of this set, as well as records of the mollusks, fishes, and insects, of various manuscripts, and of those of Linnaeus's own publications to which he had added corrections or emendations.

An important transfer of material from the Fish and Wildlife Service of the Department of the Interior was the collection of manuscript records of the dredging and hydrographic stations of the scientifically famous ship *Albatross* and other Bureau of Fisheries vessels.

Accessions of books and periodicals by purchase and by regular and special exchange were much as in the preceding year, with a fairly well stabilized flow of material continuing to come from allied and neutral countries abroad. As always, there were many generous gifts of books and pamphlets from members of the staff of the Institution and from other friends.

Current work was everywhere well kept up in spite of heavier duties, the loss of one position, and some unavoidable time-lag in filling other vacancies. The fine spirit of the staff in taking on extra work and in meeting emergencies deserves comment.

Much thought and a great deal of hard work went into the problem of relieving the serious overcrowding of the shelves in the Natural History Building. The extensive shifting and rearrangement necessary to make the best use of the 12 new sections of shelving added last year was continued and finished on the first floor. About 1,500 volumes were selected for transfer to the stacks in the Arts and Industries Building, where further extensive shifting was necessary to make room for them and where their orderly arrangement and their recording in the catalog was completed. It was particularly gratifying to be able to prepare and send to the bindery this year 1,650 volumes, mostly periodicals.

Changes on the staff were as follows: Miss Minna Gill was appointed assistant librarian on September 2, 1942. On December 9, 1942, Miss Elizabeth G. Moseley was promoted from the position of under library assistant to that of junior librarian. Mrs. Daisy F.

Bishop was appointed under library assistant on February 17, 1943. Miss Marjorie R. Kunze was promoted on February 24, 1943, from the position of under library assistant to that of library assistant.

*Statistics*

| | |
|---|---|
| Accessions (volumes and pamphlets) cataloged | 2,678 |
| Volumes added by binding periodicals | 1,002 |
| Periodicals entered | 6,114 |
| Cards added to catalogs and shelf-lists | 13,737 |
| New exchanges arranged | 101 |
| Circulation of books and periodicals | 10,154 |

Exclusive of incomplete volumes of periodicals, and of uncataloged material, the Museum Library now numbers 226,967 volumes and pamphlets.

## PUBLICATIONS AND PRINTING

A total of $43,000 was allotted for National Museum publication requirements for the fiscal year 1942–43, the same amount as for the previous year. An apportionment of $27,750 of this allotment was made for the printing of Museum Bulletins, Proceedings, and the Annual Report. Of the balance, $12,000 was allotted for binding and $3,250 for the salary of the Museum printer. Publications issued numbered 30—the Annual Report, 3 Bulletins, 1 Contribution from the National Herbarium, and 25 Proceedings. A list of these publications is given on page 111. Volumes bound totaled 1,865.

The distribution of volumes and separates to libraries and individuals on the regular mailing lists aggregated 49,818 copies, while in addition 5,813 copies of publications issued during this and previous years were supplied in response to special requests. The mailing lists have been carefully revised to avoid loss in distribution.

Paul H. Oehser, the Museum editor, continued during the year as editor of the Proceedings of the Eighth American Scientific Congress, working in collaboration with the Division of International Conferences of the Department of State. At the close of the year nine volumes of these Proceedings had been published, the remaining three volumes of the series being in the process of binding, so that it was possible to bring the actual editorial work to a close by June 30. The editor served also as chairman of the Efficiency Rating Committee of the Smithsonian Institution and devoted considerable time to the administration of efficiency ratings as required by Civil Service regulations.

*Indexing.*—Work on the comprehensive index to Museum publications, consisting this year of indexing the Annual Reports from 1882 to 1886, was carried on by Miss Gladys O. Visel, editorial clerk, and Mrs. Marguerite W. Poole, information clerk. Indexes to volumes 91 and 92 of the Proceedings were also prepared for printing.

*Museum print shop.*— As in former years, F. W. Bright was detailed from the United States Government Printing Office to print museum

and herbarium labels and special forms at the Museum print shop, a branch of the Government Printing Office. Of the 125 requisitions that were submitted for printing, Mr. Bright completed 109; in addition 3 that were submitted during the previous fiscal year were finished, a total for the year of 112. Five of the uncompleted requisitions represent specimen labels or large exhibition labels, involving long press runs or much hand setting of type. The remainder were submitted too late in the year for completing before June 30. With the exception of these, the work of the print shop is nearly up to date.

## PHOTOGRAPHIC LABORATORY

The Bureau of American Ethnology, the National Collection of Fine Arts, and the National Museum have continued their cooperative arrangement with the photographic laboratory. Under this plan the laboratory has made 3,766 negatives (including 138 photomicrographs), 13,986 prints, 168 lantern slides (including 41 kodachrome slides), 518 enlargements, and 98 transparencies (including 8 kodachromes). It has also developed 14 rolls of film, 26 film packs, and 77 cut films and has mounted 74 prints. These figures show a substantial increase over the work accomplished last year. About one-third of this year's work in the laboratory, especially that of making negatives and prints, was in connection with illustrations for the Smithsonian War Background Series of publications and in furtherance of the work of the Ethnogeographic Board and the Smithsonian War Committee.

## BUILDINGS AND EQUIPMENT

*Repairs and alterations.*—Besides the routine repairs necessary to the upkeep of the various Museum buildings, one important installation was made during the year. A fumatorium for the fumigation of Museum specimens was installed in the shipping room of the Natural History Building and placed under the supervision of the property officer.

In the absence of an appropriation to resurface in toto the private road that serves the Natural History Building, it was decided to repair the worst-worn sections and to postpone the widening and replacement of this road. On June 30, this repair work was about three-quarters completed.

*Scrap-metal salvage.*—Special efforts were made during the year to collect metal as a contribution to the war. All supervisors were instructed to make special surveys and to gather all available waste metal. This drive resulted in turning over to the Procurement Division 50,461 pounds of scrap metal between August 13, 1942, and May 21, 1943, in addition to 300 pounds of salvaged tin cans collected in boxes placed at the private entrances to the several Museum buildings, and in the north lobby of the Natural History Building, for the convenience of Museum employees.

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*Heat, light, and power.*—Electric current used during the year amounted to 1,359,000 kilowatt-hours.

The amount of steam used during the year, furnished entirely by the Central Heating Plant of the Government, was 54,856,000 pounds, 272,000 pounds more than for the previous year.

*Ice production.*—Ice manufactured by the refrigerating machine for the Museum buildings amounted to 215 tons, at a cost of $1.42 a ton. The reduction in the amount of ice produced this year from the 276 tons for last year was due to the elimination of most of the bottle-type water coolers from the third floor of the Natural History Building. No ice was purchased.

*Fire protection.*—Four additional soda and acid fire extinguishers were installed in the Natural History Building during the year, and periodic tests and inspections were made of those already installed. Some of these inspections included demonstrations in the handling of this equipment for the benefit of the Museum air-raid wardens and newly appointed guards. Several tetrachloride extinguishers of the one-quart hand type were installed in the several buildings.

Air-raid alarms were tested once each week during the year.

*Furniture and fixtures.*—Furniture added during the year consisted of 4 exhibition cases and bases and 85 pieces of storage, laboratory, office, and other furniture. Condemned and disposed of were 42 exhibition cases and bases and 16 items of storage cases, laboratory, office, and other furniture. An inventory as of June 30, 1943, showed on hand: 3,545 exhibition cases; 20,201 pieces of storage, office, laboratory, and other furniture; 114,206 drawers, boxes, and wing frames.

## MEETINGS AND SPECIAL EXHIBITS

As in former years, the auditorium and lecture room of the Natural History Building were made available for meetings of educational, scientific, welfare, and governmental organizations and groups, with assistance from the Museum when cooperation was possible; 128 such meetings were held during the year. Because of wartime conditions the regularly scheduled Arthur Lecture of the Smithsonian Institution was suspended.

The foyer and adjacent space of the Natural History Building, allotted to special exhibits, were in almost continuous use. Twelve such exhibits were held, as follows:

July 1 to 27, 1942: Exhibition of paintings by Señorita Carmen Madrigal Nieto, of Costa Rica.

July 1 to September 15; October 1 to 31, 1942: Exhibit arranged by the National Museum showing evolution of firearms.

September 15 to October 1, 1942: Exhibition of paintings by Señorita Pachita Crespi, of Costa Rica.

November 5 to 29, 1942: Exhibition of paintings by Frank C. Kirk, of New York.

December 1, 1942, to January 4, 1943: Exhibit of war materials, sponsored by the National Museum.

January 8 to 31, 1943: Exhibition of paintings and designs on Lenox vases and platters by Simon Lissim, of New York.

February 5 to 28, 1943: Exhibition of water colors by Leonora Quarterman, of Savannah, Ga.

March 1 to 31, 1943. Exhibition of photographs, by the Potomac Appalachian Trail Club.

April 1 to 30, 1943: Exhibition of photographs—"Our Navy in Action"—sponsored by the Navy Department.

May 1 to 31, 1943: Exhibition of photographs, sponsored by the Arlington Camera Club.

June 1 to 30, 1943: Exhibition of landscapes in oil, by Walter King Stone, of Ithaca, N. Y.

June 1 to 30, 1943: Exhibit of shells and marine specimens from New Caledonia and the Loyalty Islands, arranged by the National Museum.

## CHANGES IN ORGANIZATION AND STAFF

In accordance with the terms of Public Law 821 and Executive Order 9289, the service for the regular personnel of the National Museum was increased to 48 hours a week by addition of one hour a day and the elimination of the Saturday half-holiday. It was required that this increased individual service be accompanied by a reduction in force to free manpower for other use, in which all necessary separations were taken care of by transfer to other agencies. This reduction brought about a reorganization of the char force by increasing the period of duty from 20 hours to 48 hours a week. Unclassified employees were given classified status under the Ramspeck Act and and Executive Order 8743.

To afford a more usual description of the functions of his position, on January 16, 1943, Dr. Alexander Wetmore's title was changed to assistant secretary, Smithsonian Institution, director, United States National Museum.

In the department of anthropology, Dr. Joseph E. Weckler, Jr., associate curator in the division of ethnology, resigned on January 6, 1943.

Following the death of Dr. Leonhard Stejneger, head of the department of biology for many years, Dr. Waldo L. Schmitt, curator in the division of marine invertebrates, was advanced to the position of head curator of the department on June 16, 1943. Dr. Doris M. Cochran's title was changed on March 27, 1943, to associate curator in charge of the division of reptiles and amphibians. In the division of mollusks, Dr. Harald A. Rehder was reallocated to associate curator and Dr. Joseph P. E. Morrison to assistant curator on September 1, 1942. On July 1, 1943, Walter A. Weber was appointed assistant curator on the staff of the division of birds to succeed S. Dillon Ripley, 2d.

During the absence of Frank A. Taylor, who is now on military duty, the head curator of the department of engineering and industries, Carl W. Mitman, assumed charge of the division. In the division of

engineering, Fred C. Reed was appointed acting associate curator on August 1, 1942, while Paul E. Garber is on military furlough. Other division of engineering staff appointments, to be effective only for the duration of the war, are: Kenneth M. Perry, advanced from exhibits worker to senior scientific aide, August 1, 1942; Burlie Parks, transferred from the Museum property office to the position of exhibits worker formerly held by Mr. Perry. Dr. Wallace E. Duncan, assistant curator, section of chemical industries, resigned on July 31, 1942. The vacancy caused by his resignation was filled November 2, 1942, by the transfer of Joseph W. Schutz from the Social Security Board.

An honorary appointment was conferred on Dr. Walter K. Fisher as associate in zoology on June 25, 1943. The honorary title of Dr. T. Wayland Vaughan was changed on July 28, 1942, from associate in marine sediments, department of biology, to associate in paleontology in the department of geology, to represent his existing activities more accurately.

Employees furloughed for military duty during the year were as follows: Everett A. Altizer, on July 6, 1942; Paul E. Garber. on July 6, 1942; Samuel T. Fetterman, on July 20, 1942; Dr. Charles L. Gazin, on July 20, 1942; Preston L. Travers, on July 22, 1942; John L. Theunissen, on August 24, 1942; Ernest Desantis, on September 30, 1942; John B. J. Peck, on September 30, 1942; Glen P. Shephard, on October 15, 1942; Dr. Marshall T. Newman, on December 3, 1942; Harold W. McGiverin, on December 11, 1942; and Frank A. Taylor, on April 14, 1943. Furloughed for duty in private industry were: Edward Zuranski, on January 23, 1943, and Charles F. Huselstein, on May 28, 1943.

Through the operation of the retirement act, Joseph A. Boswell, principal guard (sergeant), retired on June 30, 1943, at his own option, with 17 years of service.

The year was marked by the death of several staff members long connected with the Museum. The death of Dr. Leonhard Stejneger on February 28, 1943, deprived the Museum of one of its most internationally known scientists. Harry S. Jones, principal mechanic, foreman of electricians, died suddenly on September 11, 1942; John D. Ray, junior laborer, died on October 28, 1942; and Jennie T. Jackson, charwoman, on August 29, 1942. In addition to these the honorary staff lost Dr. Samuel W. Woodhouse, collaborator, section of ceramics, department of anthropology, by death on February 2, 1943, and Dr. Mary J. Rathbun, associate in zoology, department of biology, whose death occurred on April 4, 1943.

## DETAILED REPORTS ON THE COLLECTIONS

### DEPARTMENT OF ANTHROPOLOGY

(FRANK M. SETZLER, *Head Curator*)

GLOBAL warfare, especially in the more remote areas of the earth, has focused attention on our knowledge of the aboriginal peoples and their culture. Numerous specimens, resulting from anthropological investigations of primitive cultures, as well as those collected by early explorers, have provided many pertinent details of value to our armed forces. Investigators from the various military organizations have searched our collections, analyzed specimens, and described and illustrated the diagnostic features of native inhabitants, such as houses, weapons, food plants and animals, wearing apparel, and religious objects. The well-preserved condition of these specimens, some of which were collected over 75 years ago, as well as the classification of the data, reflects the care and method of preservation employed by preceding and present staff members. This is especially significant in the division of ethnology, where 80 percent of the collections are of a perishable nature.

The department has given priority to all requests from war agencies, the Smithsonian War Committee, and the Ethnogeographic Board. Several temporary exhibitions dealing with war topics were installed in the foyer of the Natural History Building under the supervision of the staff. Owing to the rearrangement of our study collections, necessitated by defense precautions, considerable time has been devoted to the inspection of the collections and supplying the requisite amount of poisoning for the preservation of perishable objects.

Soon after January 1943 the department gave up 25 percent of its employees, some for the duration of the war and others for a period of 6 months. This reduction in manpower has been partly overcome by an increase in the hours of work and by additional responsibilities assumed by the remaining staff.

Dr. Waldo R. Wedel, associate curator of archeology, was detailed to the Bureau of American Ethnology for approximately 6 months in order to assist M. W. Stirling, Chief of the Bureau of American Ethnology, in the Smithsonian Institution-National Geographic Society archeological excavations near La Venta, in the State of Tabasco, Mexico. Dr. T. Dale Stewart, curator of physical anthropology, supervised the leveling of a supposed Indian mound near West Point, Va.

Dr. Samuel W. Woodhouse, Jr., collaborator in the section of ceramics, died in Philadelphia, Pa., on February 2, 1943. Dr. Wood-

house was given honorary appointment as collaborator in ceramics on January 11, 1928, and for some time prior to that date had been associated with the Institution in connection with the art collection presented by the late Alfred Duane Pell to the former National Gallery of Art, now the National Collection of Fine Arts.

### ACCESSIONS

Accessions received by the department during the year totaled 78 (2,514 specimens, a reduction of 486 as compared to the previous year). The classification and cataloging of several large collections accessioned in former years were completed. The 78 new accessions were assigned within the department as follows: 1 loan assigned to the head curator's office consisted of specimens from the British Information Services for a temporary exhibition pertaining to "Britain's Offensive"; archeology, 16 (1,546 specimens); ethnology, 33 (420 specimens); ceramics, 11 (185 specimens); musical instruments, 2 (3 specimens); period art and textiles, 6 (48 specimens); physical anthropology, 9 (312 specimens).

*Archeology.*—The following are among the more important of the new acquisitions: 1,359 specimens, chiefly earthenware vessels, potsherds, and figurine fragments, from Tres Zapotes, on the Arroyo Hueyapa, Tuxtla District, southern Veracruz, Mexico, collected during the winters of 1938–39 and 1939–40 by the Smithsonian Institution-National Geographic Society expeditions under the leadership of M. W. Stirling, received as a transfer from the Bureau of American Ethnology; 51 stone, bone, shell, and earthenware objects from the Irene Mound site, 5 miles above Savannah, Chatham County, Ga., collected under the sponsorship of the Chatham County Commissioners and the Savannah Chamber of Commerce, transferred by the Work Projects Administration; 24 earthenware vessels, clay heads, projectile points, etc., gathered adjacent to the ruins of Calixtlahuaca (Temple of the Wind), near the city of Toluca, State of Mexico, Mexico, and donated by Charles Burton; 2 wooden figurines, one unfinished, from Belle Glade, Palm Beach County, Fla., exhumed and presented by H. H. Hart; 1 obsidian mirror, found in a stream bed at Olmedo, about 20 kilometers south of Santa Ana, Manabí Province, Ecuador, received as a gift from O. L. Haught; 33 reconstructed earthenware vessels and representative potsherds from Ocmulgee National Monument, Bibb County, Ga., transferred by the National Park Service as the Smithsonian Institution's share of the materials recovered under various relief projects since December 1933.

*Ethnology.*—The most unique and interesting specimen received in the division of ethnology is a ceremonial mace of serpentine from the Island of Maré, east of New Caledonia in the Loyalty group of islands,

which was presented by Maj. Gen. A. M. Patch, U. S. Army. The mace was originally given to the donor by Henri Naisseline, grand chief of Maré, in whose family the specimen had long been treasured as an heirloom. Although the mace is new to our ethnological collections, it has been possible to obtain excellent information regarding this type of ceremonial weapon from French scientific literature on New Caledonia and the Loyalty Islands. This ceremonial mace ranks as the outstanding accession of the year and has been placed on special exhibition.

An important collection, consisting of 259 specimens from the Aleut, Alaskan Eskimo, Tlingit, and Haida of southeast Alaska, and the Salish of British Columbia, was donated by Mrs. Joseph Stanley-Brown. This material had been collected by the donor's husband when he was stationed at Dutch Harbor from 1890 to 1898 while in charge of the Pribilof Island seal fisheries. Thirty-four weapons and pieces of armor from the Mindanao Moro, collected in 1900, were received as a gift from Col. James A. Wheeler, U. S. Army (Rtd.). A small collection of inscriptions on bamboo from the southern Mangyan, and a similar inscription from the Buhil-Mangyan, Mindoro, P. I., together with four musical instruments from the same peoples, were presented by Maj. Fletcher Gardner, U. S. Army (Rtd.). Fishing paraphernalia, tools, utensils, and other objects used in the daily life of the Payamino Indians, eastern Ecuador, originally collected by C. Spencer, also five ceremonial dance masks fashioned by the Kobeua (Cubeo) Indians, of the Department of Vaupés, southeast Colombia, were received by transfer from the Bureau of American Ethnology. A small number of specimens from the Canelos Indians, who live along the Río Bobonaza, Oriente Province, Ecuador, among which is a feathered dance headdress outstanding for its artistry of design and beauty of color, were donated by Ford Fishback. Two hand-woven costumes from a male and a female Chamula Indian, a tribe found in the vicinity of San Cristóbal, Chiapas, Mexico, were presented by Richard Ceough. The collection of historic religions was enlarged through the gift by Mrs. Wilbur J. Carr of a Biblical widow's-mite, a bronze coin of the Roman, Alexander Jannaeus (105–78 B. C.).

Among the collections assigned to the section of ceramics the following are worthy of note: A Staffordshire, England, stoneware plate with paneled painting of the burning of the New York Stock Exchange in 1835 was presented by Stephen B. McDaniel. Two porcelain vases and plates from Capo di Monte molds, made at the Florence, Italy, factory of Marquis Ginori about 1821, were added to the collection of early Italian wares by the late William Evelyn Jones. Included in a gift by Mrs. Raymond T. Holden were four

interesting examples of ancient Greek painted terra cotta consisting of pitchers and lamp fillers excavated at Pompeii and made presumably by Greek colonists at Apulia, southern Italy, during the fourth century, B. C. A large collection of American glass made during the late 1880's and including excellent examples of "Burmese" blown glass made by the Mount Washington Glass Co., New Bedford, Mass., and "Peachblow" glass from the Boston & Sandwich Factory, Sandwich, Mass., "case" glass, a product of a Wheeling, W. Va., factory, and specimens illustrating the type of colored glass produced by the New England Glass Co., Cambridge, Mass., mostly of a greenish yellow, shading into a delicate rose color, was received as a gift from the estate of Mrs. Emma Caroline Schenck Cecil.

Among the various accessions assigned to the section of period art and textiles, the most noteworthy was a collection of antique jewelry from Scotland, Hungary, Portugal, France, Egypt, China, Ceylon, and the Philippine Islands, consisting of gold necklaces, bracelets, and brooches jeweled with star sapphires, opals, emeralds, and diamonds, collected and presented by Miss Mary E. Maxwell. A chased and embossed ornamental snuffbox, with amethyst surrounded with brilliants inset in a lozenge of blue enamel, and bearing the registry mark of Bergen, Norway, was donated by Mrs. Leonhard Stejneger at the expressed wish of her husband, the late Dr. Leonhard Stejneger, for many years head curator of the department of biology. Also noteworthy of mention is a collection of 12 eighteenth and nineteenth century Spanish, French, and Chinese antique, hand-painted ornamental fans with filigreed and inlaid staves of ivory and mother-of-pearl, received as a gift from S. L. Israel.

A French bagpipe assigned to the section of musical instruments was included in the gift of numerous objects of Swedish and other European national folk art by Mrs. W. Duncan McKim.

*Physical anthropology.*—Included in the accessions of this division are Indian skeletal remains from two ossuaries on the farm of Mrs. Alice L. L. Ferguson, near Accokeek, Prince Georges County, Md. Previously we had received the remains from ossuaries Nos. 1 and 3, and now by the receipt of those from Nos. 2 and 4 the gift is completed. Altogether this collection represents one of the largest samples of the aboriginal population from along the Atlantic coast. Another interesting item is a midget's skull from Peru, donated by J. Robert Wells. The capacity of this skull is only 485 cc., which seems to be the smallest human adult skull thus far reported.

### INSTALLATION AND PRESERVATION OF COLLECTIONS

Several temporary exhibitions were installed, under the direction of the head curator, in the foyer of the Natural History Building. Through the cooperation of Capt. Charles Carey, assistant curator of history, and Herbert W. Krieger, curator of ethnology, an interest-

ing exhibition was prepared illustrating the "Evolution of Firearms," which traced the development of weapons from the earliest type of sling through the throwing stick, Chinese whistling arrows similar to those used by Genghis Khan, Chinese and European crossbows, prototypes of pistols, rifles, and machine guns, culminating in the Garand rifle, modern machine gun, and models of tanks now used by the United Nations and Axis forces. This display remained on exhibition throughout September, October, and November 1942. During December 1942, in cooperation with the British Information Services, a special exhibition portrayed "Britain's Offensive." A ceremonial mace presented to General A. M. Patch, U. S. Army, by Henri Naisseline, grand chief of Maré, in the Loyalty Islands group east of New Caledonia, was placed on special exhibition. The mace was donated to the national collections by General Patch at the time of his visit to the National Museum.

With the operation of the new fumatorium the task of thoroughly poisoning perishable specimens has been lessened and the operation standardized. As time and personnel permit, all our specimens liable to infestation will be subjected to this procedure. The transfer of numerous objects now in open racks into standard storage cases will simplify the assignment, classification, and the keeping of our specimens in good condition.

*Archeology.*—During the year 14 new and revised archeological exhibits were installed, covering the following subjects: Peruvian pottery and textiles; miscellaneous materials from South American republics; ornaments, amulets, and religious objects, alabaster vases, earthenware wine vessels, and plaster casts of statuettes, all from ancient Egypt; and Roman, Greek, and Syrian lamps. Four additional cases were arranged for special display in the foyer.

More than 2 months were devoted to the cleaning and repair of prehistoric Peruvian pottery in anticipation of the exhibits mentioned above. Three American cases were lined with monk's cloth; loose glass was tightened on 50 other cases; 100 quarter units of new storage cases replaced the old racks in the east corridor of the north wing on the third floor. The division's correspondence files were rearranged and put in order, and the card catalog was condensed to save space.

The new fumatorium was used to poison all the Aleutian mummy bundles and other prehistoric perishable materials.

The cleaning, sorting, and listing of the 1939 and 1940 collections brought back by the Smithsonian Institution-National Geographic Society expeditions to Tres Zapotes, Veracruz, Mexico, occupied members of the staff from August 1942 until early in March 1943. Catalog cards have been typed, but at least 6 months more will be required for marking the individual specimens. All minor accessions have been cataloged.

*Ethnology.*—The division of ethnology cooperated with the division of history in the installation of specimens illustrating the evolution of firearms. Ethnology displayed primitive weapons such as were in general use up to the introduction of firearms and gunpowder, while history exhibited specimens illustrating the advance of projectile weapons from that period up to the present. Display cases depleted or emptied through evacuation of specimens have been provided with new or auxiliary exhibits for the duration of the war. The ceramic gallery in the Arts and Industries Building has been redecorated. All shelving and backs of cases were covered with monk's cloth after minor changes were made in cabinet work in certain deep wall cases, making for neatness of display and increased visibility. All material exhibited has been cleaned and each exhibit rearranged.

The wooden bases supporting the bronze statuary of the Herbert Ward collection from the Congo have been repaired. Ceiling and walls of the hall housing this invaluable collection have been repainted. Painting of the ceiling and walls of hall 7, Natural History Building, has enlivened the exhibits of African, Melanesian, Micronesian, Polynesian, and Indonesian ethnology. Repairs of 10 of the keyboard instruments of the Hugo Worch collection included the redraping of front panels with wine-colored rayon. A new exhibit illustrating the artistic and ornamental use of silver in the handicrafts of various South American peoples was installed in the hall devoted to South American ethnology. This display shows a pleasing combination of colonial Spanish and native Indian techniques in metal working.

All current accessions and those from previous years have been classified and cataloged. The tribal index for the many thousands of specimens of the Victor J. Evans accession, a major collection of the division, has been completed by Mrs. Jessie S. Shaw, clerk-stenographer. She has also undertaken an inventory and the recataloging of laces now included in the study series of the section of period art and textiles. The entire collection is being reclassified according to type, with cross references to donors and collectors. It is thought when this work is completed that most of the more important laces from the study series can be assembled in glass-covered trays in the hall of period art and textiles for reference use by Museum visitors. This arrangement should supplement the limited number of display cases now on exhibition. The work performed by the laboratory of the department in the restoration and repair of specimens, particularly in the field of southwestern Pueblo pottery, has made many additional specimens available for study purposes.

*Physical anthropology.*—The exhibition illustrating artificial cranial deformity was reorganized so as to show in one large flat-top case

examples from North America and in another those from South America. The small flat-top case previously containing this exhibit now illustrates sex differences in the skeleton, while another case shows variations in head size, including the smallest and largest known human skulls.

The addition of an under scientific helper to the staff on July 16, 1942, made it possible to rearrange much of the storage section. He took up the work where the W. P. A. workers had left off—checking contents of drawers with labels, making new labels, and bringing together separated parts of individual skeletons. As a result, most of the study collections now are more easily available than ever before.

The extensive revision of the division's catalog, begun last year, was carried to completion by Mrs. M. B. Murphy, clerk-stenographer, early in the fall. Following the revision of the catalog, work was begun on the index to the Hrdlička collection of reprints. These reprints, which Dr. Aleš Hrdlička, associate in anthropology, donated to the divisional library, are now filed in boxes of uniform size, numbered consecutively. Thus far attention has been given only to reprints pertaining to Latin America.

*Anthropological laboratory.*—The chief preparator, Andreas J. Andrews, supervised the modeling, casting, repair, and restoration of the many anthropological specimens. In collaboration with the division of physical anthropology he completed a bust and piece mold of an average 18-year-old white male derived from the composite measurements furnished by the division of physical anthropology. The casts were used in our laboratory for experimental purposes by the Bureau of Aeronautics, Equipment and Materials Section, of the Navy Department, for designing a combination pilot's helmet, goggles, and oxygen mask. Subsequently other casts of this bust were furnished to the National Bureau of Standards.

For the division of archeology Mr. Andrews repaired and restored several large prehistoric pottery vessels and a Mexican sculpture. Nine aboriginal baskets from caves and pueblo ruins were cleaned and repaired and several stone objects were repaired. For the division of ethnology the bronze statues in the Herbert Ward alcove were waxed and polished; two suits of armor were repaired, polished, and a preservative applied; a ceremonial mace from New Caledonia and 15 metal knives and spears were cleaned and treated with a preservative; crossbows and an Indian bandolier were repaired; 56 broken earthenware vessels from the American Southwest were restored; and considerable assistance was given in the poisoning of specimens in storage cases. For the division of physical anthropology two Teton Sioux busts were modeled from facial masks and cast;

and 19 new bases with raised inscriptions for Indian busts were completed.

A plaster cast of a life-sized model was completed for the division of history in connection with its exhibition of period costumes. A bust of Benjamin Franklin was cast for the division of graphic arts. Other casts and repairs were made for the division of invertebrate paleontology and the National Collection of Fine Arts.

### INVESTIGATION AND RESEARCH

Considerable research was required of the staff in the department of anthropology in order to supply the information requested by various military agencies, the Smithsonian War Committee, and the Ethnogeographic Board, in addition to the time required for the identification of specimens submitted to the department. At the same time several anthropological manuscripts were completed for publication. An article entitled "Archeological Accomplishments during the Past Decade in the United States," by the head curator, was published during the year in the Journal of the Washington Academy of Sciences. He also prepared an article entitled "Archaeology: Western Hemisphere" for the 1943 Britannica Book of the Year. G. D. McCoy, clerk-stenographer in the office of the head curator, summarized the W. P. A. archeological quarterly reports that had been turned over to the Smithsonian Institution, covering the W. P. A. archeological investigations on more than 567 sites in 254 counties within 24 States.

As secretary of the Advisory Board of the National Park Service, the head curator attended two conferences of the Board at the new Park Service headquarters in Chicago, Ill. On August 17, 1942, he was appointed general defense coordinator of the Smithsonian group of buildings excluding the National Gallery of Art.

More than 60 lots of specimens were submitted to the department for identification and subsequently returned to the owners. During the year 476 replies were made to letters requesting anthropological data. In addition to the identification of anthropological material, many visitors and correspondents were supplied with information in connection with old china, silver, and musical instruments.

*Archeology.*—Besides the studies connected with the installation of archeological exhibitions, the curator of archeology, Neil M. Judd, completed his analysis of basketry, matting, and other fabrics from prehistoric Pueblo Bonito, N. Mex., and made considerable progress with the bone artifacts. Dr. Waldo R. Wedel, associate curator, early in the fiscal year began study of his 1939 collections from Scott County, Kans., but put this aside in order to accompany M. W. Stirling on the 1943 Smithsonian Institution-National Geographic Society Expedition to La Venta, Tabasco, Mexico. For the Atlas

of American History Dr. Wedel reviewed his data relative to Coronado's route in 1541 from Pecos, N. Mex., to Quivira, in central Kansas; in addition, he read the proofs of Bulletin 183 of the U. S. National Museum, entitled "Archeological Investigations in Platte and Clay Counties, Missouri."

As in previous years, Associate Curator Wedel has conferred with various institutions and individuals who submitted directly to him archeological material from the Great Plains and Upper Mississippi Valley, in addition to material from nearby Maryland and Virginia. The curator likewise has been asked to assist both Government bureaus and individuals. Twelve lots of archeological material were received for examination and report and subsequently returned to the senders.

*Ethnology.*—The classifying and cataloging of ethnographic and auxiliary collections and supplying information requested by individuals, organizations of a private or public character, the several war agencies, and the armed forces involved considerable compilation of anthropological data. This type of research continuously occupied the staff to the almost complete exclusion of a second and more original type of research that has for its aim the verification or revision of accepted conclusions regarding man and culture. The curator, H. W. Krieger, prepared a manuscript on the peoples of Micronesia and Melanesia for one of the Smithsonian War Background Studies.

Governmental departments and agencies used the division's resources continuously throughout the year. Many classes of specimens were examined and sketched. Skin garments and footgear of Arctic peoples were singled out for special study by the Quartermaster Corps of the U. S. Army, as well as by several scientific divisions of the Government. The division's library was combed for every available scrap of information constructive to the war effort. The demand by individual correspondents and visitors as well as other Government bureaus for photographs from our negative files is steadily increasing. This involves the assembling of appropriate pictures for selection, as well as of specimens to be photographed, and the identification and captioning of the prints.

Eighteen written reports were made pertaining to the examination and identification of a total of 41 specimens for private individuals. The number of visitors to the offices of the division seeking information or an informal report on specimens brought for examination and identification exceeded that for the previous year. The study of ceramics, silver, and pewter is of never-failing interest to the public and involves considerable assistance on the part of the staff in addition to the compilation of information for distribution to interested correspondents. Visitors and correspondents show an increasing

interest in the care and preservation of antiques and family heirlooms and request advice regarding technical methods of repair and preservation.

*Physical anthropology.*—Curator T. Dale Stewart continued his research throughout the year on the physical anthropology of South American Indians. This project, which is intended to summarize our information on the human skeleton for the Handbook of the Indians of South America, has necessitated the examination and verification of several hundred references. It has involved also the collecting of measurements and their statistical analysis, where adequate. These data show a clear-cut geographical segregation of skull size among the Indians of South America that roughly parallels the distribution of stature: the largest peoples in the East and Southeast and the smallest in the West and Northwest. Skull shape, however, except relative head height, fails to show definite segregation. Low-headed skulls are localized in the northern part of the continent, a fact that may be significant historically in view of the occurrence of this feature in western North America and probably in Middle America.

The curator prepared an article on "Food and Physique" for the volume of "The Annals" (American Academy of Political and Social Sciences) devoted to "Nutrition and Food Supply: The War and After." Other articles prepared by him during the year are: "Skeletal Remains from Paracas, Peru," "Distribution of Cranial Height in South America," "Relative Variability of Indian and White Cranial Series," and "Natives of the Indo-Pacific Islands." The first three of these articles were prepared for the American Journal of Physical Anthropology; the last for the U. S. Navy.

The associate curator of physical anthropology, Dr. Marshall T. Newman, also was engaged, up to the beginning of his military furlough, in research pertaining to South America. Having prepared a manuscript while in Peru on the skeletal remains that he had collected there, he undertook during his short stay in Washington to synthesize all the published data on undeformed Peruvian crania. As a further contribution to this subject he measured all the crania in the national collections from San Damian, in the central highlands. The results of this work were published in an article entitled "A Metric Study of Undeformed Crania from Peru."

The former curator, Dr. Aleš Hrdlička, now associate in anthropology, worked on his Alaskan reports during most of the year. When they were completed and in press, he began to analyze his assembled data on human tibia.

The curator furnished reports in a form for publication on skeletal remains from Mancos Canyon, in southwestern Colorado, which represents the late Basket-Maker and early Pueblo cultural periods,

sent in by Erik K. Reed, of the National Park Service; as well as a report on material from the Sugar Run site in northwestern Pennsylvania, associated with an eastern Hopewellian cultural period, sent in by C. E. Schaeffer, of the Pennsylvania Historical Commission.

On four occasions Dr. Hrdlička or Dr. Stewart identified skeletal remains brought in by agents of the Federal Bureau of Investigation. Two lots of bones were submitted by private individuals for examination and report.

### DISTRIBUTION AND EXCHANGE OF SPECIMENS

During the year the department distributed 354 items, including plaster models, photographs, and specimens, as loans, transfers, and gifts to other Government bureaus, museums, schools, colleges, and private organizations, for exhibitions and other educational purposes. Two miniature plaster models of the Aztec Calendar Stone were made for the Office of Education, Department of the Interior.

### NUMBER OF SPECIMENS UNDER DEPARTMENT

At the close of the fiscal year, the department of anthropology was credited with a total of 711,117 cataloged specimens, representing a net increase of 2,481. The following summary indicates the distribution of specimens as assigned to the various divisions and sections within the department:

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|---|---|
| Archeology | 479,295 |
| Ethnology | 182,517 |
| Ceramics | 7,563 |
| Musical instruments | 2,413 |
| Period art and textiles | 2,203 |
| Physical anthropology | 37,126 |
| Total | 711,117 |

## DEPARTMENT OF BIOLOGY

(WALDO L. SCHMITT, *Head Curator*)

AT A period when the Nation is dedicated to war a decrease in the number of accessions to the collections of the National Museum is expected, but as a result there is more time available to our staff for concentration on the Museum's contribution to the war effort. The role that the department of biology plays in this war is far from a passive one, though, by their nature, the services rendered must at this time remain in part at least confidential. Much information, the more valuable because so much of it is first-hand, of people, places, and natural resources has been furnished to our armed forces and active war agencies.

In the furtherance of the aims of the Division of Cultural Relations of the Department of State, three members of our scientific staff have recently completed successful missions to Latin America: Ellsworth P. Killip spent the months of March and April and most of May in Venezuela assisting Dr. Henri Pittier, director of the Servicio Botánico, and his associates in Caracas in the identification of large collections of plants from little-known parts of the republic. Several short collecting trips were undertaken, of which the most important was in company with a party of investigation from the Rubber Reserve Corporation to the Río Paragua in Venezuelan Guyana. Dr. Remington Kellogg spent the greater part of the period from March to mid-May in Brazil, giving particular attention to research work involving Brazilian mammals suspected of being or known to be the hosts of vectors of transmissible diseases, and collaborating with members of the staffs of the Museu Nacional at Rio de Janeiro, the Departamento de Zoologia at São Paulo, and the Museu Goeldi at Belém. Considerable time was devoted to the editing of a folio memoir on certain groups of mammals of Amazonia prepared by Dr. Eladio da Cruz Lima. Dr. Waldo L. Schmitt, during April, May, and June, visited Brazil, Uruguay, and Argentina, where he consulted with members of the staffs of a number of the leading museums interested in the study of invertebrates, discussing research problems of mutual interest, particularly those affected by the war, and examining collections of fresh-water Crustacea. In the course of his travels he gave eight lectures before university, museum, and other scientific groups. Generously assisted by state officials, museum staff members, and members of the sanitary and malarial control services, he was enabled to make collections of fresh-water crustaceans in several localities in each of the countries visited.

The present holder of the Walter Rathbone Bacon Traveling Schol-

arship, Philip Hershkovitz, continued his mammal collecting in northeastern Colombia with gratifying success. Under the W. L. Abbott fund, M. A. Carriker, Jr., was in the field from July to September 1941 and began another expedition in May 1942, making further collections of the Colombian avifauna. W. A. Weber, also traveling under the Abbott fund, secured some 600 bird skins during a four months' trip to Tabasco, southeastern Mexico, while accompanying an archeological expedition sponsored jointly by the Smithsonian Institution and the National Geographic Society.

Locally, Dr. L. P. Schultz devoted several days to the collection of fossil fish remains at Scientists Cliffs, Md. Some field work was undertaken in and about the District of Columbia by various members of the U. S. Bureau of Entomology and Plant Quarantine who are located in the Museum, principally by Dr. W. H. Anderson and Louise M. Russell, for the purpose of securing beetle larvae. As a result, a very extensive collection was obtained, and the larvae and adults of 25 species were definitely associated. Fifteen species of larvae obtained were previously unrepresented in the Museum collection. Dr. Paul Bartsch, assisted by members of his staff, continued his field studies on the breeding of the fresh-water snail *Goniobasis* in the Shenandoah and Potomac Valleys. Field work in connection with the survey of the butterflies of Virginia, which has been carried on in past years by Austin H. Clark, was this year restricted to 2 weeks in the vicinity of Mount Solon.

With the death of Dr. Leonhard Stejneger on February 28, the Department and the Museum suffered an irreparable loss. He had been head curator of the department of biology for the past 32 years. As man and as scientist, he was noted for his breadth of knowledge, depth of understanding, and, above all, for his clear thinking. In him we have lost a good friend and a wise counselor.

Dr. Mary J. Rathbun, for more than half a century associated with the National Museum as the chief organizer and for many years the active head of the division of marine invertebrates, died on April 4. The present high standard of excellence of the invertebrate collections and the system of record-keeping that she instituted are themselves heritage enough, without the generous provision in her will bequeathing $10,000 to the division for the purpose of continuing the scientific work on Crustacea which she began.

The microfilming of the Museum's catalogs by the National Archives as a safeguard against wartime hazards is one of the noteworthy accomplishments of the year. It is also of great interest to note here the transfer of the valuable study collection of fishes of the former U. S. Bureau of Fisheries to the Museum, coincident with the removal of the Fish and Wildlife Service, with which the Bureau was merged,

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to Chicago. In all, about 50,000 specimens of fishes were involved in the transfer, including the Bureau of Fisheries reserve series, totaling 2,143 catalog entries, among which are listed 104 types.

### ACCESSIONS

Accessions for the year aggregated 704, with a total of 213,823 specimens. The marked falling off in the number of accessions is a direct result of the stepping up of the war and of the Nation's wholehearted support of all that pertains to it. There are 236 fewer accessions this year than last, accompanied by a corresponding reduction in the number of specimens received by each division in the department except one. Only the division of fishes showed an increase in the number of specimens received, this as a result of the removal of the Fish and Wildlife Service to Chicago, as noted above. The more noteworthy accessions are listed under the various divisions as follows:

*Mammals.*—Important mammalian specimens include the following: The first complete skeleton of the African bush elephant, *Loxodonta cyclotis*, to come to the national collections, a gift from the Philadelphia Zoological Garden; 5 Virginia deer collected in the Virgin Islands by Harry A. Beatty and donated by him to the Museum; 27 mammals collected by the George Vanderbilt Sumatran Expedition, on Sumatra and Nias, a gift from the Academy of Natural Sciences of Philadelphia; 24 small mammals, principally from the Maracaibo Basin, Venezuela, collected by Dr. L. P. Schultz; 37 mammals collected by Walter A. Weber in Tabasco, Mexico; 10 pinniped and 8 porpoise skulls from the Pacific coast, a transfer from the Fish and Wildlife Service; 42 Missouri coyotes and dogs, a transfer from the Fiah and Wildlife Service; 4 small rodents collected in the endemic plague area in the Province of Tomina, Department of Chuquisaca, Bolivia, a transfer from the Pan American Sanitary Bureau; and 58 mammals from the National Zoological Park.

*Birds.*—Various items of the widely scattered collections of the United States Exploring Expedition of 1838–1842 continue to come to hand from time to time. A number were included in a collection of 149 birds from various parts of the world recently presented to the National Museum by Georgetown University. Particularly welcome among the year's accessions are three skins, representing the pheasant genus *Anurophasis* and the shrike genus *Eulacestoma*, of New Guinea birds new to our collections, obtained in exchange from the American Museum of Natural History; the type of the warbler *Prinia flaviventris delacouri*, an exchange from the Princeton Museum of Zoology; 2 specimens of another form new to the collections, the black-lored grass warbler, *Cisticola nigrilora*, an exchange from the Museum of Comparative Zoölogy; and the skins of 65 species of Ecuadorian birds heretofore not represented in our collections, obtained by purchase.

Other important ornithological material accessioned includes Col. L. R. Wolfe's gift of 8 bird skins and the head of 1 bird from Eritrea, a locality unrepresented in the Museum collections; 80 bird skins and 1 bird skeleton from the late J. H. Riley; a gift of 56 bird skins from Georgia and Florida from H. L. Stoddard; 593 bird skins and 14 bird skeletons from Tabasco, Mexico, collected for the Museum by Walter A. Weber under the W. L. Abbott fund; 29 bird skins from Venezuela, a gift from the Carnegie Museum; 74 bird skins from North Africa, given to the Museum by Dr. A. J. Tacquin, of Safi, Morocco, and received through the kind intermediation of Ensign A. G. Humes; 63 bird skins collected by Harry Malleis in Guatemala, transferred from the Fish and Wildlife Service; and 6 lots containing 86 skeletons, 18 skins, and 2 eggs from the National Zoological Park.

*Reptiles and amphibians.*—An especially fine series of Haitian reptiles and amphibians received from Anthony Curtiss contained the second known specimen of a rare genus and species of snake, *Darlingtonia haetiana* Cochran. From Venezuela Dr. L. P. Schultz brought back an exceptionally fine series of the dwarf Surinam toad, *Pipa parva*, showing free-swimming tadpoles in all stages and adults with the eggs encysted in the thickened skin of the back, where they are kept until a fairly advanced stage of development is reached. Harry A. Beatty sent in a very complete collection of the frogs, lizards, and snakes of the Virgin Islands area, including two specimens of the rare blindsnake *Typhlops richardii* from St. Thomas.

*Fishes.*—The outstanding event of the year in the division of fishes was the transfer to the Museum of the extensive collection of fishes maintained by the former U. S. Bureau of Fisheries, now merged with the Fish and Wildlife Service. Another large collection accessioned this year consisted of 34,700 specimens brought to the Museum by Dr. L. P. Schultz from the Lake Maracaibo region of Venezuela in the spring of 1942. Type and equally valuable material was received as follows: From the Fish and Wildlife Service 49 gobies, comprising 3 holotypes and 46 paratypes; from the California Academy of Sciences an exchange of 21 specimens, including 6 paratypes; a gift of 2 paratypes of *Notolepidomyzon intermedius* Tanner from Dr. Vasco M. Tanner; 2 rare South American fishes, *Ochmacanthus reinhardti* and *Urinophilus erythrurus*, received in exchange from the Natural History Museum of Stanford University; from the Museum of Comparative Zoölogy 6 cotypes of *Cynopotamus biserialis* Garman as well as 564 South American fishes collected by the Thayer Expedition; 286 fishes from Texas and Florida presented by J. L. Baughman; 37 fishes from Colombia from Cecil Miles; and 61 fishes, mostly from the Río Cauca, Colombia, from the Escuela Superior de Agricultura Tropical, through Mr. Miles.

*Insects.*—Foremost among the year's entomological accessions were the following: The balance of the private collection of the late George P. Engelhardt, long a generous friend of the Museum, comprising 4,300 miscellaneous insects, accompanied by his extensive and valuable personal entomological library; a gift of six very rare trap-door spiders, *Cyclocosmia truncata* (Hentz), from Tennessee, collected by the donors, William M. Wheeler, Jr., and Paul Wheeler, the third known occurrence of this species since its discovery a century ago; and a collection of over 300 insects obtained by Maj. W. L. Jellison in Yunnan Province, China, brought out by mule, truck, and finally by air to India, and from there to the United States by ship. From the Department of Agriculture approximately 46,000 miscellaneous insects were received by transfer during the year. A large part of this material was supplied by South American investigators of the Bureau of Entomology and Plant Quarantine, while other desirable lots came from the bureau's Division of Foreign Plant Quarantines, the result of interceptions at various ports of entry.

*Marine invertebrates.*—This year five accessions brought much valuable type material to the Museum's collections of marine invertebrates, viz: Types, allotypes, and paratypes of 13 new species of crayfishes from Dr. Horton H. Hobbs, Jr.; types and paratypes of 7 new species of echiurid worms from Dr. Walter K. Fisher; the holotypes of 4 branchiobdellid worms from Dr. Clarence J. Goodnight; holotypes, allotypes, and paratypes of 4 new ostracods from C. Clayton Hoff; cotypes of 3 species of fresh-water amphipods from Leslie Hubricht; and from Prof. Robert W. Pennak the cotypes of a new crustacean, *Derocheilocaris typicus*, upon which a new genus, new family, and new order were based. A noteworthy transfer was received from the New Orleans laboratory of the shrimp investigations of the Fish and Wildlife Service, consisting of about 700 specimens of well-preserved, well-sorted, and partly identified invertebrates, chiefly from the Gulf of Mexico. Capt. Robert A. Bartlett again brought back from northern waters a miscellaneous collection of marine invertebrates, in continuation of his annual donations of the past decade.

*Mollusks.*—One of the important mollusk collections of North America was left to the Museum by the late Dr. Frank C. Baker, together with 17 bound volumes of his own published writings. This collection comprises approximately 10,000 specimens and includes the types of many species described by the donor. Collections including type material were received from Miss Marie E. Bourgeois, Dr. B. R. Bales, A. Sorensen, Maxwell Smith, V. D. P. Spicer, Museum of Comparative Zoölogy, Miguel L. Jaume, Academy of Natural Sciences of Philadelphia, and Capt. William Osment. By purchase, in part through the Frances Lea Chamberlain fund, 264 operculate land

shells were obtained from Mrs. Weena C. Fulton, of England. Other sizable collections were received as follows: From Oscar Haught, 4,000 specimens from Ecuador; 175 Arctic mollusks from Capt. R. A. Bartlett; 377 specimens collected in Venezuela for the Museum by Dr. L. P. Schultz; 300 mollusks resulting from the Peruvian investigations cooperatively carried on by the U. S. Fish and Wildlife Service and the Peruvian Government; and 1,700 specimens from the Gulf of Mexico shrimp investigations of the Fish and Wildlife Service. Of special interest is a donation of 1,500 shells from the island of New Caledonia, received from the National Geographic Society and Maj. Gen. A. M. Patch. This material is the first of any consequence received from this now important part of the world in many years.

*Helminths.*—Twelve of the 17 helminthological accessions received during the year contained type material, as follows: From Ralph F. Annereaux, type specimen of *Opecoelina pharynmagna* Annereaux; from Prof. Dr. Eduardo Caballero y C., Instituto de Biología, Universidad Nacional Autónoma de México, cotypes of *Parallintoshius tadaridae;* from Miss María Cristina Cerecero, of the same school, cotype of *Euparyphium ochoterenai;* from Ellsworth C. Dougherty, University of California, holotype and allotype of *Halocercus kirbyi* Dougherty; from Dr. Ralph F. Honess, University of Wyoming, type and paratype of *Protostrongylus frosti;* from Prof. R. Chester Hughes, Oklahoma Agricultural and Mechanical College, 8 slides bearing cotype specimens of *Hymenolepis parvisaccata* and 39 slides representing four new species; from Arthur W. Jones, University of Virginia, types of *Protogynella blarinae* and *Diorchis reynoldsi;* from Prof. David Richard Lincicome, University of Kentucky, paratypes of *Corynosoma obtuscens;* from Dr. H. J. Van Cleave, University of Illinois, paratypes of Acanthocephala; and from Prof. Richard N. Winger, University of Wyoming, type of *Protostrongylus agerteri.* Dr. Benjamin Schwartz, chief of the Zoological Division, U. S. Bureau of Animal Industry, also reports the receipt of 280 new lots of specimens.

*Corals.*—Among the material accessioned by the section of corals were the types of six corals transferred to the Museum by the Fish and Wildlife Service and 50 corals from New Caledonia received from Maj. Gen. A. M. Patch and the National Geographic Society.

*Echinoderms.*—The New Caledonia echinoderms received through the National Geographic Society and Maj. Gen. A. M. Patch constitute the most interesting of the current accessions. A small collection presented by Capt. R. A. Bartlett form the basis of a recently published report by the curator, A. H. Clark, and Gordon J. Lockley, of the British Museum.

*Plants.*—Among the more important botanical accessions is an ample and well-prepared series of 2,353 plants from little-explored

parts of Colombia received in continuation of exchanges with the Instituto de Ciencias Naturales, Bogotá, with which we are cooperating on a descriptive Flora of Colombia. Other exchanges include: 1,957 specimens from various regions, from the Gray Herbarium; 3,405 specimens from many sources, from the Arnold Arboretum; 1,754 specimens, mostly from Panama, from the Missouri Botanical Garden; 1,546 specimens, mostly from Florida, Bolivia, and Papua, from the New York Botanical Garden; 1,500 specimens, mostly from Guatemala, from the Field Museum of Natural History; 2,102 specimens, mostly from Texas, Mexico, and Haiti, from the University of Michigan; 585 specimens from northern Mexico, from Stanford University; 301 specimens from the western United States, from the University of California; 285 specimens, mostly from California, from the California Academy of Sciences; 400 specimens from Kentucky, from the University of Kentucky. Ten noteworthy accessions consist of plants presented to the National Herbarium by their respective donors, the first five of these with requests for identifications, as follows: 729 specimens of Venezuelan plants from Prof. H. Pittier; 536 specimens, mostly from Haiti, from L. R. Holdridge; 2,100 specimens from Virginia and West Virginia from H. A. Allard; 750 specimens from Martinique from Dr. H. Stehlé; 512 specimens from the Hawaiian Islands from Otto Degener; 902 specimens, mostly from the western United States and eastern Asia, from Dr. R. Kent Beattie; 401 grasses from many regions from Mrs. Agnes Chase, custodian of grasses; 515 specimens from California and Colorado from E. P. Killip, associate curator; 450 specimens from the eastern United States from C. V. Morton, assistant curator; 764 specimens from the eastern United States and eastern Canada from Dr. E. H. Walker, assistant curator. Two other valuable collections are 1,355 specimens, mostly grasses, received as a transfer from the Department of Agriculture, and 947 Mexican plants obtained by purchase.

### INSTALLATION AND PRESERVATION OF COLLECTIONS

The removal of the types from all biological collections in the building to safer storage elsewhere, when this could be done without detriment to the specimens concerned, has been virtually completed. All reasonable precautions have been taken to safeguard the materials still remaining in the building against the threat of bomb damage. With these two vitally important tasks now behind us, we can again turn to those things which, in the ordinary course of events, are more properly Museum functions.

On the whole, because of lack of time and manpower, few changes have been made in the exhibition series. However, 13 specimens of various kinds, birds, fish, and a ground squirrel, were mounted and

placed on exhibit. The old moose group in the west main hall was dismantled, and the North American small-mammal exhibition cases were rearranged as the result of the space so released. Behind the scenes considerable progress was made on several larger groups in preparation. Eight large birds, chiefly penguins, and the mold and cast of a crab-eater seal were completed for the Antarctic group, three handsome beavers for the beaver group, and many of the accessories for the Virginia deer group. In addition, considerable work was done for the Pan American Union on its exhibits of South American birds, and the biological section of the Smithsonian Index Exhibit was dismantled, overhauled, rearranged, and reinstalled.

The division of mammals, despite the acquisition of new cases, is still having difficulty in finding storage space for its ever-growing and valuable skull collection. The skin and alcoholic collections continue in satisfactory shape. For the study series the taxidermist force has skinned, made up, or remade a total of 122 skins, of which more than a fifth were of large size. The osteologists cleaned 99 skeletons and 994 skulls and removed 3 alcoholics; 18 skeletons were roughed out; 3 sets of leg bones, an African bush elephant skeleton, and one set of whale ribs were cleaned; and 6 young whale skulls were assembled.

The division of birds has energetically continued the rearrangement, reidentification, and labeling of its study series of bird skins, this year covering in whole or in part the material of nine families: Fringillidae, Thraupidae, Icteridae, Compsothlypidae, Coerebidae, Turdidae, Troglodytidae, Alaudidae, and Tetraonidae. A checking of specimens for types and inadequate labels has accompanied the reworking of the collection. The catalogs of the scientific names and of published illustrations of birds have been continued. During the year 73 birds were skinned and made up by the taxidermist force, 54 degreased and made up, 10 degreased, 267 skeletons cleaned, 78 roughed out, and 3 eggs blown.

The already crowded alcoholic stack and dry storage of the division of reptiles and amphibians is now taxed to capacity with the recent intercalation of the material held in his office by Dr. Stejneger. It became necessary to encroach upon space formerly occupied by the superintendent of the building in order to accommodate 50 quarter-unit cases of turtle skins. This year the taxidermists tanned and made up 18 turtles and skinned 18 more, 15 turtle skulls were cleaned, 5 others were alcoholically preserved, and 4 lizard skeletons and 11 lizard skulls were cleaned.

The transfer of the large fish collections of the Fish and Wildlife Service to the National Museum threw a considerable burden of work on the division of fishes. Of the 50,000 specimens involved the old

U. S. Bureau of Fisheries reserve series of 2,143 jars and more than 1,000 large fishes in tanks have been cataloged. This reserve series, so-called, contained a great deal of valuable material, including 13 holotypes, 91 jars of cotypes, and 32 jars of paratypes. The condition of all collections continues satisfactory. The osteological collections, however, are in need of rearrangement.

As a result of arrangements recently concluded with the Surgeon General of the Army, the division of insects will receive for study and housing material of medical importance collected by the Sanitary Corps. In order to facilitate study, additional space has been provided for the use of visiting Army, Navy, and Public Health Service entomologists.

The division of insects is also overhauling its collections as time permits. This year the family Nitidulidae was entirely rearranged and expanded to take care of a considerable accumulation of identified specimens. Work on the Coccinellidae was continued, and additional dissections of males and females were completed.

A serious effort was made by both the Museum and the Bureau of Entomology and Plant Quarantine specialists to finish the segregation of all holotypes in the insect collections, and a great deal of progress was made. About half of the types of Lepidoptera, half of those of Diptera, virtually all the Homoptera (except the aphids and aleyrodids), and a small section of the Coleoptera remain. Work is being continued with each of these groups except the Homoptera, for which there is at present no specialist available. For this group a specialist is needed particularly to single out the types because in many cases they were none too well marked. Otherwise, the segregation of the insect types has been completed. The condition of the insect collection as a whole continues good—excellent in those portions that have been rearranged in the past several years and most satisfactory in the case of the types that had been moved to a safe storage, where they were very recently inspected by the curator in charge of the division. The lack of slide storage equipment, especially needed for the section of ectoparasites and Acarina among others, continues to be one of the division's most pressing problems and is again emphasized. In other directions, particularly with the Lepidoptera, work of the division has been handicapped by the inadequacy of available space and lack of drawers and cork-lined trays. More space and sufficient supplies, when it is possible to secure them, will yield handsome returns in the improvement of the arrangement of all collections.

The redetermining and rearranging of the collections under the supervision of the specialists of the Bureau of Entomology and Plant Quarantine were materially advanced in most insect groups. The shifting of approximately 1,200 drawers brought the members of the respective families and orders of the Orthoptera and neuropterid

insects closely together. Formerly most of these insect groups were distributed through several collections. All the Museum specimens of the order Embioptera, except for undeterminable nymphs and females, have been identified by Lt. Edward S. Ross, of the California Academy of Sciences.

Of the families of the Coleoptera, Dr. M. W. Blackman completely rearranged the several subfamilies of the Scolytidae, placing special emphasis on the groups predominant in the Neotropical region; he also made a beginning on the sorting and arrangement of the Oriental Scolytidae. Preparatory to a comprehensive study of the Bostrichidae, W. S. Fisher completely rearranged the family in accordance with the most recent classification. Among Dr. J. M. Valentine's assignments, the Pyrochroidae, Paussidae, and Rhyssodidae were completely rearranged, as were also several economically important genera of the Elateridae and minor sections of the Carabidae, Anthicidae, and Oedemeridae. Dr. Valentine has pointed out that, although the Museum collection of Elateridae contains a good representation of the Nearctic species, the fauna of central and western Canada is very poorly represented, and that an effort should be made to obtain Elateridae from those areas. Following the completion of his studies on the genus *Phyllophaga*, Dr. A. G. Böving re-sorted all the larval material belonging to this genus and arranged it in proper systematic sequence.

The task of incorporating the very large and valuable Barnes, Owens, Blackmore, and Brooklyn Museum collections of Lepidoptera with those of the National Museum is an important one upon which the lepidopterists of the Bureau have been working as their other responsibilities permitted. Despite the fact that progress has at times appeared discouragingly slow, some commendable progress has been made. During the past year H. W. Capps completed the incorporation of the North American Geometridae of the Barnes, Blackmore, and National Museum collections into one unit. He also rearranged the larvae of the family Oecophoridae in accordance with J. F. G. Clarke's recent revision. W. D. Field completed the tremendous task of incorporating and rearranging all the material in the several subfamilies of Arctiidae, including the large group of Lithosiinae, and the family Satyridae, and began similar work on seven or eight other families of Macrolepidoptera. This has almost been completed for the Pieridae, Danaidae, Hesperiidae, and Megathimidae, in which families the work involved the transfer of nearly 75,000 specimens.

The family Cicadellidae of the Hemiptera was completely rearranged by Dr. P. W. Oman to conform with his manuscript revision of the group before leaving to take a commission with the Sanitary Corps of the Army on October 1, 1942. The family Psyllidae was transferred to Louise M. Russell for supervision. H. G. Barber's re-

tirement interrupted the work on the Heteroptera. His successor, Dr. R. I. Sailer, has, since his appointment in September, identified and placed in labeled trays approximately 500 specimens of Corixidae and 1,300 specimens of the pentatomid genus *Chlorochroa*. Approximately 1,000 specimens of Anthocoridae, mostly undetermined, have likewise been reviewed and transferred from drawers to named trays; and some definite improvement was made in the arrangement of the pentatomid genus *Solubea* and the mirid genus *Lygus*. With the addition of the McAtee collection of reprints, the Museum's library of reprints dealing with Hemiptera has become probably one of the most complete in the world. The entire collection of aphids is now in excellent order, having been expanded since it had become congested at certain points.

The mosquitoes, among the Diptera, received a great deal of attention during the year from Dr. Alan Stone because of their medical importance. Nearly all undetermined *Anopheles* in the Museum were named, a great deal of material from the Orient was critically studied, the determinations checked, and the whole lot sorted geographically. Most of the accumulated tabanid material was identified and arranged to conform with the latest generic classification. M. T. James, who succeeded D. G. Hall, has already checked over and rearranged more than half of the collection of the Stratiomyiidae and the Scopeumatidae, of which he is an outstanding authority, correcting numerous misidentifications and naming a rather large accumulation of undetermined material in the process.

Work on aculeate Hymenoptera, since Dr. Karl Krombein's appointment to the Sanitary Corps, has been virtually at a standstill except for the identification of more important material. In the collections of parasitic Hymenoptera R. A. Cushman arranged the material belonging to the Ophionini in accordance with his revisionary study of the group, and A. B. Gahan did the same for certain groups of Eupelmidae and Callimomidae. The collection of Braconidae belonging to the subfamily Aphidiinae was completely reworked by Dr. Clyde F. Smith, of North Carolina State College, and since its return has been rearranged in accordance with Dr. Smith's scheme of classification. The genus *Atanycolus* is now arranged to correspond with the classification of Dr. Roy D. Shenefelt, of Washington State College, who has recently studied the group. Many improvements have been made in the ant collection, the material of various economic genera being restudied and rearranged.

It is gratifying to record that the card catalogs of the Hymenoptera have been brought reasonably up to date after a lapse of almost 15 years.

The thrips genus *Frankliniella* was revised by Dudley Moulton, of Redwood City, Calif., in the course of a 6 months' appointment,

during which he reviewed and reclassified approximately 1,800 slide preparations. On its return, the entire material was properly arranged in the Museum's collection of Thysanoptera by J. C. Crawford.

In the section of ectoparasites the slide preparations of chigger mites were rearranged to correspond with the generic revision developed this year by Dr. H. E. Ewing. During the past year new labels were made for practically the whole of the preserved Collembola material, which has now been expanded and arranged in accordance with the most recently published classification.

An overhaul of the alcoholic and dry study collections of the division of marine invertebrates has recently been completed, and as a result the study collections are in very good shape. The work continues in the echinoderm collections in similar fashion.

In the division of mollusks the care of collections, by virtue of the magnitude of the task, has been confined largely to the segregation of types. The helminthological collection is kept in excellent shape by members of the staff of the zoological division of the Bureau of Animal Industry.

In the division of echinoderms a rechecking of the dry types has been nearly completed.

In the division of plants 16,678 specimens of flowering plants and ferns were mounted, wholly by adhesive straps, 11,198 of these by contract and 5,480 by Mrs. Eleanor C. White, who, in addition, repaired 3,225 specimens and mounted about 3,600 photographs, typed or printed descriptions, and reference labels on herbarium sheets. During the year 28,856 specimens were stamped and recorded and thus made ready for the Herbarium, leaving only about 2,500 still unstamped. An accumulation of nearly 18,000 specimens awaits mounting. Because of lack of help, about 10,000 fewer specimens were mounted than during the preceding year. This is a condition for which some remedy needs to be found if the Herbarium is to function efficiently and render maximum service. Of mounted, stamped, and recorded specimens, including sheets bearing descriptions, there are about 60,000 awaiting incorporation in the Herbarium, of which about 50,000 are from continental America. Their distribution has been facilitated by the availability of the 40 cases vacated when the type specimens were sent to a safer storage. Because of the great increase of South American material received for identification since the threat of war arose in 1939, amounting to 23,800 specimens in four years, E. P. Killip has found it expedient to combine such identification work, family by family, with the distribution of mounted specimens into the Herbarium. This plan worked so well that C. V. Morton is following it in working up large collections from the southwestern United States, Mexico, and Central America. The task of segregating type specimens is being continued with excellent results, the number

now segregated totaling 42,834. Nearly one-half of this increase of 14,514 specimens over last year's total consists of ferns and Philippine flowering plants. The remainder consists of 7,485 grass types, which had been carefully segregated over a period of many years but never included in previous totals of the so-called Type Herbarium.

E. C. Leonard, in charge of the cryptogamic collections, incorporated a large series of mosses and hepatics from Virginia and a considerable number of lichens and algae in those collections. The C. G. Lloyd mycological collections, in charge of John A. Stevenson, honorary curator, have been removed to new fireproof quarters at the Bureau of Plant Industry Field Station at Beltsville, Md.

### INVESTIGATION AND RESEARCH

The curator of mammals, Dr. Remington Kellogg, reports further progress with his accounts of the fossil whalebone whales of the family Cetotheriidae, with his studies of several extinct cetaceans from the Miocene and Pliocene of Florida, and on the taxonomy of South American porpoises, particularly the genera *Sotalia*, *Stenella*, and *Cephalorhynchus*. During his visit to Brazil and subsequently Dr. Kellogg assisted with the editing of a large folio memoir prepared by Dr. Eladio da Cruz Lima on the monkeys of Amazonia. Dr. David H. Johnson, associate curator, is making a study of variation in the dwarf buffaloes, genus *Anoa*, and continues his investigations on the taxonomy of the North American squirrels. The identification of quantities of mammal bones found during the excavation of numerous archeological sites in seven different States and in caves in Coahuila, Mexico, occupied a great deal of the associate curator's time. Gerrit S. Miller, Jr., research associate, was engaged during the year revising his "North American Recent Mammals."

The curator of birds, Dr. Herbert Friedmann, continued work on the gallinaceous birds for part 10 of Ridgway's unfinished monograph, "The Birds of North and Middle America." In this connection he published three papers on as many genera of game birds, one jointly with Dr. J. W. Aldrich on the complicated variations of the ruffed grouse. He also completed a study of the birds collected in the Antarctic by the United States Antarctic Service Expedition under Admiral Byrd and continued the study of the Venezuelan-Brazilian collection made by E. G. Holt, besides writing a number of critical reviews of recent ornithological literature. His account of the natural-history background of camouflage written for the Smithsonian's War Background Studies is in demand both in civilian and in military circles. Some West African honey-guides were studied for the Carnegie Museum. Furthermore, he published two papers on South American birds, one in conjunction with the associate curator. The associate curator, H. G. Deignan, divided his time between work on the birds of northern

Siam, now approaching completion, and what has proved to be a most profitable research into the records and catalogs of the collections, uncovering many unexpected types and correcting many errors. He published a number of papers dealing, respectively, with the bibliography of Thai ornithology, a revision of the difficult warbler genus *Prinia*, on a little-known pheasant, *Gennaeus crawfurdii*, and a number of short notes on local birds. He was also joint author with the curator of a paper on South American birds, and contributed a paper on Thailand to the Smithsonian's War Background Studies. The assistant curator, Walter A. Weber, though away in the field for a third of the year, devoted considerable time to problems associated with the exhibition collection. Dr. Wetmore completed and published a report on the birds of southern Veracruz and in connection with this published descriptions of several new birds from the region. Besides describing a new form of the curious helmeted curassow *Pauxi* from Venezuela with W. H. Phelps, of Caracas, he published several shorter notes on bird bones, recent and fossil, and prepared a biographical memoir on the late J. H. Riley.

Dr. Doris M. Cochran continued studies on South American frogs, and completed one of the most popular of the Smithsonian's War Background Studies, on the poisonous reptiles of the world. Subsequent to Dr. Stejneger's death on February 28, she prepared for publication the section dealing with the soft-shelled turtles of his uncompleted studies on American turtles.

The curator of fishes, Dr. L. P. Schultz, devoted the greater part of the year to a study of the fishes he collected in Venezuela the year previous, completing an important manuscript on the catfishes of that country. Two other manuscripts have been submitted for publication; three others resulting from earlier studies appeared in print.

The curator of insects, Dr. E. A. Chapin, continued his investigations on the genus *Hippodamia* and on certain other groups of Coccinellidae. Dr. R. E. Blackwelder, associate curator, is serving for the duration with the Air Track Corporation, College Park, Md. Before leaving the Museum to begin his war-work assignment, Dr. Blackwelder turned in for publication Part 1 of his "Checklist of the Coleopterous Insects of Mexico, Central America, the West Indies, and South America" and made arrangements to devote his spare time toward the completion of this huge task, which was undertaken at the instigation of the Smithsonian War Committee.

Taxonomic research by members of the staff of the Bureau of Entomology and Plant Quarantine was greatly restricted, principally because of reductions in personnel. In the Orthoptera and neuropteroid insects, Dr. H. K. Townes, recently appointed to take over Dr. Gurney's assignments when the latter entered the Army, spent some time familiarizing himself with these groups and so has had

little opportunity for research. Before being transferred to this section, however, he did accomplish a great deal of work on the Diptera, particularly the Ichneumonidae. Dr. M. W. Blackman's current studies on the Coleoptera resulted in the completion of four papers on new genera and species of Scolytidae, chiefly Neotropical, based in part on Museum material and in part on specimens intercepted at Mexican border ports.

This year Dr. J. M. Valentine gave special attention to the North American Elateridae of the genera *Aeolus* and *Drasterius*, collecting important data that have a significant bearing on the problem of speciation. He has virtually completed the taxonomic analysis, the distribution, and most of the required illustrations. W. S. Fisher gave his research time during the year mainly to the Bostrichidae, nearly completing a revisional paper classifying the North American species. The problem proved to be an especially difficult one, as a number of exotic species seem to have become established in the United States. In the Chrysomelidae, H. S. Barber devoted some time to a restudy of various groups in the large and complex genus *Diabrotica* and in the genera *Lema* and *Rhabdopterus* and began a study of the genus *Rhabdopterus* because of reports of injury to cultivated plants. He completed a paper describing a remarkable wingless hispine beetle from Cuba and completed and published a synopsis of the species of *Rhabdopterus* occurring in America north of Mexico. L. L. Buchanan pursued further the intricate taxonomic problems presented by the so-called white-fringed beetles comprising the subgenus *Graphognathus* of the genus *Pantomorus*. Several distinct species or forms of this large South American group have become established in the United States and have become pests of importance. All the species of the subgenus appear to be parthenogenetic, complicating the taxonomic problems involved. As it has been extremely difficult to define the limits of the supposed segregates that have become established in this country, Mr. Buchanan has undertaken a statistical analysis of several of these forms. Dr. W. H. Anderson continued his critical studies of rhynchophorous larvae, and completed characterizations of the tribes and genera of the subfamily Curculioninae, preparing keys to these groups and to the genera of the Otiorhynchinae. Since this study on rhynchophorous larvae was begun in 1940, approximately 140 genera have been investigated in detail. Dr. A. G. Böving, who had retired, was reinstated when Dr. B. E. Rees joined the Army, and devoted much of his time during the year to a detailed study of the larvae of the family Anobiidae. A key to the genera was prepared and numerous illustrations were completed.

Taxonomic research in the Lepidoptera was much curtailed this year. W. D. Field made some further progress with his studies on the Lithosiinae. Some attention was given to the large revisional

study of the family Phycitidae begun by Carl Heinrich several years ago. H. W. Capps continued with his work on the classification of the family Geometridae. In connection with the classification of lepidopterous larvae begun about a year ago by Mr. Heinrich and Mr. Capps as a joint project, all the available larvae of the families Gelechiidae, Cosmopterygidae, Oecophoridae, Blastobasidae, Stenomidae, Xyloryctidae, Ethmiidae, Momphidae, Epermeniidae, Blastodacnidae, and Scythrididae were thoroughly restudied and the characters of each species charted. In November 1942, August Busck, who had retired, was reinstated to complete the monograph of the Aegeriidae upon which the late George P. Engelhardt had worked for many years.

In the Hemiptera Dr. R. I. Sailer, seeking to determine the specific limits in the pentatomid genera *Chlorochroa* and *Solubea*, reviewed the extensive material in the national collections and in collections borrowed from other institutions. The results of the study of *Solubea* are virtually ready for publication. Some time was devoted to the completion of a paper on the Thyreocorinae of the United States. Dr. P. W. Oman completed a reexamination of the available material in the leafhopper genus *Macropsis*, with special reference to the distributional limits of the species. Louise M. Russell initiated revisional work on the world fauna of the aleyrodid genera *Aleuroglandulus* and *Dialeurodes*. Besides describing a new economic species of psyllid from the Belgian Congo, Miss Russell completed a large paper entitled "The North American Species of the White Flies of the Genus *Trialeurodes*." As other duties have permitted, Dr. P. W. Mason has been revising the aphid genus *Macrosiphum*, the second largest genus of aphids known, with representatives in all the major zoogeographical regions. This study has developed the fact that entirely new sets of characters will have to be discovered before a satisfactory key to the members of this very difficult genus can be constructed.

Dr. Alan Stone's principal long-time research problem covers a revision of the Nearctic Simuliidae. A large amount of material from various sources was determined, assisting the definition of specific limits within the group. Brief periods of time have also been devoted to the Tabanidae of Venezuela. The results of Dr. Stone's studies have been extensively used by the Army in the preparation of a guide to the identification, distribution, habits, and relation to malaria of the anopheline mosquitoes of the world. Several Army officers, as well as Dr. Lloyd E. Rozeboom, of the Johns Hopkins University, participated in the undertaking, which is being published under the authorship of Russell, Rozeboom, and Stone. A study of the most injurious leafminers of the agromyzid genus *Liriomyza* was undertaken by C. T. Greene. He also did some work on dipterous

larvae found to occur abundantly in corn ears in the Southern States and Mexico. A critical study of definitely associated larval material has enabled Mr. Greene to distinguish clearly between two forms of larvae. Lately he has been working on the phorid genus *Megaselia* with the object of defining the species and preparing a synopsis of the North American forms. M. T. James completed a synopsis of the Nearctic species of the stratiomyiid genus *Adoxomyia* and made definite progress on a study of the North American species of *Cordilura* and related genera in the Scopeumatidae. Before taking over the Orthoptera and neuropteroid families, Dr. H. K. Townes gave considerable attention to the family Tendipedidae, completing a revision of the Nearctic species of the tribe Tendipedini.

In the Hymenoptera comparatively little research was carried on except in the ants. R. A. Cushman continued his studies on the ichneumonid tribe Ophionini, completing a revisional key to the genera included in this group. In this connection, he worked up a large collection of Hawaiian material belonging to the genus *Enicospilus*. A. B. Gahan completed revisions of the chalcidoid genera *Arachnophaga* and *Encyrtaspis*. He also gave considerable time to a reclassification of the families of Chalcidoidea, an important undertaking, as nothing of the sort had been published since the classification of Ashmead of 1904. Dr. H. K. Townes, who has accumulated one of the best collections of North American Ichneumonidae in existence, completed a catalog of the Nearctic species. Dr. M. R. Smith completed and published several short papers describing isolated new species of ants of more than ordinary interest. He also completed a generic and subgeneric classification of the male ants, in itself a large and important contribution, as the classifications heretofore have been based almost entirely on the worker caste. He also completed synopses for the ants of the genera *Tetramorium* and *Thaumatomyrmex*.

In the Thysanoptera J. C. Crawford made further progress in working over the eastern species of the important genera *Thrips* and *Sericothrips*, and did a good deal of work on Dudley Moulton's revision of the North American species of the genus *Frankliniella*, preparing it for publication.

Dr. H. E. Ewing's research work on ectoparasites, Acarina, and minor orders was this year confined almost exclusively to the study of the chiggers, as the military establishments were concerned with the control of chiggers at Army camps and desired to have a taxonomic treatment of this group available. Two preliminary papers on the taxonomy of certain American chiggers were completed and published, and an improved technique for the slide preparation of chiggers developed.

As a result of military operations in many mosquito-infested regions, there has been a greatly intensified interest in these insect pests. R. E. Snodgrass therefore undertook and completed a critical anatomical study of mosquito mouthparts and then expanded the work to include the feeding apparatus of all principal biting and disease-carrying flies.

Dr. Waldo L. Schmitt, curator of marine invertebrates, spent some time reorganizing the collections of lithodid crabs in preparation of a taxonomic study of the North Pacific forms of economic importance. During the last 3 months of the year he visited museums and other scientific institutions in Brazil, Uruguay, and Argentina, examining collections of Crustacea, making a special study of the species of *Aegla*, and determining unidentified material. Clarence R. Shoemaker, associate curator, brought to completion his comprehensive report on the very large collection of bathypelagic amphipods amassed by the Bermuda Oceanographic Expeditions of the New York Zoological Society from 1929 to 1931. A large collection of amphipods from the Bay of Fundy, belonging to the Canadian Government, was worked on as time permitted, and the sorting into genera of the large collection of amphipods of the Hancock Pacific Expeditions was continued preparatory to more intensive study of this material. J. O. Maloney, aide, continued the identifications of isopods taken from plant importations by the United States Bureau of Entomology and Plant Quarantine. In connection with his studies on the bryozoan collections, Dr. R. S. Bassler reports considerable progress in picking out the Bryozoa, Ostracoda, small corals, and several other groups from the washings stored in the attic. The entire set of Philippine dredgings was completed, and the material in these several lines is now in shape for detailed study. Dr. J. A. Cushman, honorary collaborator, this year devoted himself largely to stratigraphic problems of prime importance to the successful prosecution of the war. He also completed a short manuscript on the Foraminifera of the United States Antarctic Service Expedition.

The curator of mollusks, Dr. Paul Bartsch, and Dr. Carlos de la Torre, of Habana, after several years of intensive effort, have almost completed their joint study of the Cuban urocoptid land shells. Dr. Harald A. Rehder, associate curator, continued his researches on the Hawaiian gastropods, and also spent considerable time on other problems, especially those dealing with the west Atlantic marine fauna. Dr. J. P. E. Morrison, assistant curator, is carrying forward anatomical studies of the Bulimidae and during the year also completed the descriptions of some new fresh-water bivalves from South America. Researches on the helminthological material were undertaken by various members of the zoological division of the United States Bureau of Animal Industry. Dr. T. Wayland Vaughan and Dr. John W. Wells continued their studies on the corals.

The curator of echinoderms, Austin H. Clark, continued work on Bulletin 82, "A Monograph of the Existing Crinoids," completing another part of the fourth volume, which includes the account of the remaining family, Colobometridae, of the superfamily Mariametrida, and the accounts of the families Tropiometridae, Calometridae, Ptilometridae, and Asterometridae of the superfamily Tropiometrida. The third part of this volume is nearly completed.

Because of its importance and its magnitude, the completion of the task of segregating all types in the National Herbarium received first attention of all members of the staff of the division of plants. Nevertheless, the curator, Dr. W. R. Maxon, found some time to pursue his study of numerous fern collections from many tropical South American localities. The associate curator, E. P. Killip, made considerable progress with the program he is conducting in collaboration with Colombian and Venezuelan botanists for the thorough study of the flora of their respective countries, identifying a great deal of material in the course of this comprehensive work. E. C. Leonard, assistant curator, completed several papers in continuation of his studies of American Acanthaceae, and nearly completed another on the shale-barren plants of the Massanutten Mountains, Va., in collaboration with H. A. Allard. In connection with extended studies on collections of Cuban plants, largely collected by himself, C. V. Morton, assistant curator, made considerable progress with a synoptic list of vascular plants of that island. Dr. E. H. Walker, assistant curator, published three short papers and began a study of tropical American Myrsinaceae. Mrs. Agnes Chase, custodian of grasses, continued her studies of grasses, especially those of Brazil.

The number of lots of specimens sent in with requests for identification was as follows: Mammals, 41; birds, 41; reptiles and amphibians, 13; fishes, 19; insects, 65; marine invertebrates, 37; mollusks, 49; helminths, 4; echinoderms, 2; plants, 160; a total of 431. There has been a decided number of requests for information other than for identifications. The number of specimens from all sources identified during the year by all divisions approximated 28,000. The division of insect identification of the Bureau of Entomology and Plant Quarantine received over 18,000 lots of insects for determination and 50,000 identifications were made.

### DISTRIBUTION AND EXCHANGE OF SPECIMENS

Duplicate zoological specimens distributed to museums, colleges, high schools, and similar institutions aggregated 1,430 specimens, 1,422 specimens were sent out in exchange, and 689 specimens were transferred to military and naval centers. The 2,026 plants dis-

tributed were sent out as exchanges to 27 institutions and correspondents. This is but a small fraction of the number of plants usually sent out each year. The marked decrease is due partly to the fact that communication with foreign institutions has mostly been cut off, and in large measure also to lack of time, preference having been given to the segregation, cataloging, and safe storage of type specimens and to various war effort activities, including field work and the prompt identification of critical plant materials.

### NUMBER OF SPECIMENS UNDER DEPARTMENT

The summary of specimens given below is based on the numbers estimated for the previous fiscal year, with the addition of the specimens accessioned during the present year and the deduction of specimens removed during the same period. The figures of the early estimates were approximate and have been revised from time to time. No estimate has as yet been made for the corals, nor does the number of plants include the lower cryptogams and duplicates. In several of the divisions lots consisting of minute organisms are frequently counted as single specimens, though they may contain hundreds and even thousands of individuals, the enumeration of which could serve no useful purpose.

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|---|---|---|
| Mammals | | 245, 272 |
| Birds: | | |
| Skins | 284, 749 | |
| Alcoholics | 10, 068 | |
| Skeletons | 18, 047 | |
| Eggs | 90, 389 | |
| | | 403, 253 |
| Reptiles and amphibians | | 126, 974 |
| Fishes | | 1, 299, 303 |
| Insects | | 5, 461, 470 |
| Marine invertebrates | | 1, 041, 152 |
| Mollusks | | 3, 010, 654 |
| Helminths | | 146, 248 |
| Echinoderms | | 169, 422 |
| Plants | | 1, 848, 600 |
| Total | | 13, 752, 348 |

## DEPARTMENT OF GEOLOGY

(R. S. Bassler, *Head Curator*)

The past year has been marked by special effort toward placing the reference collections of minerals and fossils in the best order for ready consultation. This is with a view to the near future when more than ever before they will be needed to help in stratigraphic and other geologic studies already planned for the discovery of new deposits of oil, minerals, ores, and other economically important substances. With the war occupying the time and energy of so many people, there was naturally a decrease in the receipt of specimens. It therefore behooved us to take advantage of this condition to bring our work up-to-date and put our house in order for the postwar period, when undoubtedly there will be many additions to the study series through transfers from Government agencies and through gifts of the geologic materials now under study by others as a part of their war work.

The collections in general have as usual been under study by various research workers. The minerals especially have been consulted frequently, particularly by representatives of the war agencies with reference to promising localities for those of strategic use. The size, scope, and quality of our mineral and ore collections have amazed many of the new workers in this field unfamiliar with the Museum. The staff also has been consulted often for information by various branches of the armed forces and other war agencies. This assistance has covered a wide field, ranging, for example, from instruction in geology and mineralogy for those entering specific areas to advice on the hard-rock resources of hitherto little-known regions of the world.

While field work for upbuilding the exhibits has been curtailed, researches in general geology were increased. An economic survey was made in northern Mexico by Dr. G. Arthur Cooper under the auspices of this Institution and the Mexican Geological Survey authorities. This field work, which was conducted in connection with search for war minerals, resulted in the discovery of a long new sequence of Cambrian rocks associated with ore deposits in western Sonora. Dr. Cooper also spent some time in Illinois and adjacent States, where for the first time correlations of Devonian rocks were established in that promising area for new oilfields. Supplementing this work, the publication of Dr. Cooper's correlation of North American Devonian sedimentary formations, upon which he had labored in his spare time for several years, marked an important advance in stratigraphy. C. W. Gilmore, early in the year, successfully completed his explorations for fossil vertebrates in the Brule division of the Oligocene in Niobrara County, Wyo. He was accompanied by Alfonso Segura, of the staff of the Museo Nacional de Costa Rica, San José, who was

invited to join the party for the field experience and training in methods that he wished to apply to his own work in Costa Rica.

Dr. W. F. Foshag, on detail from the Museum, spent the entire year in continuation of his work in Mexico supervising surveys for strategic minerals. Dr. C. Lewis Gazin since July 20, 1942, has been on military detail in the service of the United States Army.

### ACCESSIONS FOR THE YEAR

The accessions of new materials for the year number 133, comprising approximately 9,725 specimens. The individual records for the several divisions are as follows: Mineralogy and petrology, 72 accessions (1,686 specimens); invertebrate paleontology and paleobotany, 46 accessions (7,789 specimens); vertebrate paleontology, 15 accessions (250 specimens).

*Mineralogy and petrology.*—The income from the Roebling fund was responsible for ten accessions pertaining to minerals. Among these were an unusually large scheelite crystal from Moctezuma, Sonora, Mexico; a number of well-crystallized chrysoberyls from near Collintina, Espirito Santo, Brazil; a group of phenacites from Paricicaba, Minas Geraes, Brazil; a green tourmaline group from Figueira, Minas Geraes; a large crystal of aquamarine from Spitskopje, Africa; nephrite from Lander, Wyo.; a group of pyrolusite crystals from Silver City, N. Mex.; some zeolites from Benton County and cinnabar crystals from Jefferson County, Oreg.; sahlinite from Langban, Sweden; and a specimen of ardealite from Transylvania, Rumania.

The largest single accession of minerals was the gift of the John W. Langsdale mineral collection belonging to Georgetown University, whereby many good examples from old American and European localities were added to the collections. This afforded opportunity to improve the quality of our specimens from some of these old inaccessible places.

Through the generosity of Calvin Joyner a number of Chinese-Turkestan jades were received. The Cranbrook Institute of Science presented a number of minerals, the most important of which were well-formed native copper crystals from Michigan and some unusual fluorites from Clay Center, Ohio. Arthur Montgomery continued his interest in the mineral series by donating specimens of microlite from New Mexico. Dr. John P. Marble presented a specimen of thortveitite from Norway and three allanites analyzed in the course of his work on radioactivity. Henry G. Savage donated a specimen of the newly described mineral brodrickite. F. A. Rapp, of the Merchant Marine, forwarded some very good columbite and tantalite specimens, as well as a few crystals of amazonite from Amelia, Va. The following members of the Geological Survey were instrumental in obtaining valuable sets of ores and minerals, which were contained in various transfers from that institution: W. T. Schaller, T. B. Nolan, Miss J. J. Glass, F. C. Calkins, W. B. Lang, and J. Bridge.

The outstanding addition to the gem collection was the 316-carat star sapphire known as the Star of Artaban, a gift of W. Frank Ingram. This most welcome gift ranks with the finest of our individual gems. Another notable gem stone was a 54-carat blue Brazilian topaz obtained through the Frances Lea Chamberlain fund. A strand of Turkestan turquoise beads and several synthetic rubies, reported to have resulted from the first successful experiment of Prof. Henri Moissan, were received as a gift of J. Morgan Clements.

Ten meteorites hitherto unrepresented in our collections were added this year. These comprise a slice of the Somervell County, Tex., meteorite received in exchange from Oscar E. Monnig, and nine other slices purchased through the income of the Roebling fund, as follows: Abernathy and Sanderson from Texas; Atlanta, La.; Aurora, N. Mex.; Hardwick, Minn.; and the Brewster, Garnett, and Otis from Kansas. An additional 1,842-gram individual of the Harrisonville, Mo., fall was also purchased through this fund.

Dr. Stuart H. Perry, associate in mineralogy, presented a 4,640-gram specimen of the Modoc, Kans., meteorite, an example larger than others we had of this meteoritic shower. Dr. Perry also donated an album of five volumes containing nearly 1,500 photomicrographs of the structures in meteoritic irons. Last year he gave the entire set of negatives of this work to the division, so that through the research and generosity of Dr. Perry the most complete existing file of the metallurgy of meteoritic irons is now available in this Museum.

Among the ores received during the past year were two specimens containing free gold from Larco mine, Santander Province, Colombia, donated by Joseph Ulmer. The Stevens Institute of Technology presented two samples of graphite, one from Korea and the other from Madagascar. Ores of tungsten and other metals were obtained from F. W. Horton, of the Bureau of Mines, by exchange for duplicate minerals. William A. Riggs, in continuance of his interest, contributed specimens of mercury and zinc ores from the Arkansas area in which he has been working the past year. Transfers from the Geological Survey included an unusually large bauxite from Wilkinson County, Ga.; tin ore from Cima, Calif.; a large specimen of tungsten ore from Tungstonia, Nev., and another from near Fairbanks, Alaska; and copper ores from South Strafford, Vt.

The most noteworthy addition to the rock collection was a set of unusual concretions containing dufrenite from near Greenbelt, Md., presented by Frank L. Hess and E. E. Fairbanks, of the Bureau of Mines.

Two important additions to the geological collections were received as transfers: One, the rock specimens from southern Edsel Ford Range and Marie Byrd Land, Antarctica, from the United States Antarctic Service, Department of the Interior, and the other, a set of rocks and minerals from the Cottonwood-American Forks area,

Utah, from the United States Geological Survey. Both series have been studied and contain described material.

*Invertebrate paleontology and paleobotany.*—Sixteen of the accessions in this division record many interesting specimens of invertebrate fossils from the Lower Devonian of Tennessee, Devonian of the Midwest, Missouri, Michigan, Mississippi, Utah, and Ontario, and early Devonian of West Virginia. Of these the most important are the Devonian invertebrates collected in the Mississippi Valley States by Prof. A. S. Warthin, Jr., of Vassar College, and Dr. G. A. Cooper during their investigations in that area. Next in importance were 118 lots of Devonian fossils occurring in cores of deep wells drilled in Illinois by the Shell Oil Co., the donor of the material. Mention should be made here of the results of a former field trip. The etching of 1,400 pounds of fossiliferous Permian limestone blocks from Texas, lent Dr. Norman D. Newell at the University of Wisconsin for study, yielded an abundance of fossils so delicate that it was necessary for them to be transported personally to the National Museum by Dr. Cooper. Among them were unusual sponges of delicate structure and a large number of pelecypods. The latter were left with Dr. Newell for the preparation of a monograph on this subject.

Early Devonian fossils from the Huntersville chert of West Virginia and Virginia for the stratigraphic series formed a gift from Dr. E. E. Rehn, of the Ohio State University. Three other lots totaling 750 specimens from the Devonian formations of West Tennessee were presented by P. P. Fox. Other gifts of Devonian fossils consisted of mollusks and brachiopods from W. A. Kelley and topotypes of Bryozoa from the Museum of Paleontology, University of Michigan, all from the Traverse formation.

In return for assistance by Dr. C. E. Resser, Dr. Franco Rasetti, of Laval University, presented a splendid set of fossils and casts of types from the classic locality at Levis opposite Quebec City, Canada. The specimens, photographs, and casts thus far received from Dr. Rasetti facilitate the identification of our old collections and form such an excellent supplement to them that the National Museum now possesses an extensive representation of these interesting faunas. Casts made by Dr. Resser of the types of Cambrian fossils in the collections at the Museum of Comparative Zoölogy, the Peabody Museum of Natural History, Yale University, and Columbia University, supplied fine reproductions of some 200 species for our study series.

The transfer from the Tennessee Valley Authority of a collection of peculiar crustaceans found in strata of unknown relationship in the Douglas Dam area brought an accession of particular scientific interest. After complete excavation of the dam, the geologists present concluded that these rocks filled an ancient sink hole.

The fossil echinoderm collection was enriched by the purchase of 12 specimens of Devonian crinoids from Ontario through the income of the Springer fund; by the gift of Dr. D. K. Gregor of 50 crinoids from the Silurian of southeast Missouri; by gift of H. L. Strimple of 11 specimens of crinoids from the Mississippian of Iowa and Oklahoma; by gift of Raymond E. Peck of paratypes of 22 species of Lower Cretaceous crinoids from Texas; and by 53 Lower Cretaceous echinoids from Gayle Scott.

In the series of Mesozoic fossils a valuable accession was the gift of Francis N. Johnston of about 2,000 Triassic fossils from the New Pass Mountains, Nev. Many types will result when the study of these fossils has been completed.

In the section of Cenozoic invertebrates, 11 lots of specimens were accessioned, aggregating 2,370 specimens, a considerable increase over last year's total. The most outstanding of these are as follows: A collection of about 50 types of Miocene Ostracoda from the Duplin marl of North Carolina, received from Richard A. Edwards; about 25 specimens (topotypes) of the foraminifer *Pseudophragmina* (*Proporoculina*) *peruviana* (Cushman), from northwestern Peru, received from Dr. Don L. Frizzell; holotype and paratypes of the foraminifer *Paranomion venezuelanum* Logue and Haas from the Upper Miocene of Venezuela, received from L. L. Logue and Merrill W. Haas; and about 1,000 specimens of Tertiary Foraminifera and Echinoidea from Camagüey Province, Cuba, received from Mrs. Dorothy K. Palmer. Paratypes of 31 species of Eocene Foraminifera from the Lodo formation of Fresno County, Calif., were obtained in exchange from Stanford University. The Pleistocene collections were enriched by the transfer from the U. S. Geological Survey of 230 fossil mollusks from New Mexico; 500 specimens from Golconda, Ill., gift of Charles Butts; and 506 land and fresh-water shells from Winona County, Minn., gift of Dr. S. C. Happ.

A large petrified conifer log from the Cretaceous formation near Berwyn, Md., was the gift of J. C. Stewart. This interesting fossil is now exhibited in its proper geological setting in the wildfowl exhibit of the National Zoological Park, where a résumé of the District of Columbia geology has been reproduced. Opalized wood specimens from Plumas County, Calif., gift of Mrs. Faye I. Cameron, and a section of a petrified tree trunk from James A. Tatum, were other accessions in paleobotany.

*Vertebrate paleontology.*—The outstanding accession of the year in this division was the collection resulting from the field expedition of the past summer in the Oligocene beds of Niobrara County, Wyo. The party secured a good representative series of the fauna, comprising some 236 lots in all. Specimens worthy of special mention are nearly complete articulated skeletons of the various mammals known as *Merycoidodon*, *Leptomeryx*, *Pseudocynodictis*, *Deinictis*,

and *Hoplophoneus*. Good series of skulls and partial skeletons of the fossil horse *Mesohippus*, the small camel *Poebrotherium*, the early rhinoceros *Hyracodon*, the squirrel *Ischromys*, and the rabbit *Palaeolagus* were also collected.

Through exchange with the Carnegie Museum a nearly complete skeleton of the primitive deer *Hypertragulus calcaratus* Cope was added to the collection. This specimen is being mounted for the exhibition series. A skull and lower jaws of the Miocene horse *Parahippus leonensis* and a right ramus of *P. blackbergi*, both from Florida, were received in exchange with the Museum of Comparative Zoölogy.

A fragmentary but unique reptilian specimen, consisting of 14 caudal vertebrae of a dinosaur, the first to be found in the Upper Cretaceous of Missouri, was obtained by purchase. The distal end of a femur of the sauropod dinosaur (*Pleurocoelus*), found in the Cretaceous Potomac gravels in the District of Columbia and transferred by the War Department, was interesting for its occurrence.

The collection of fossil birds was enriched by a small lot of bones, including the type of *Geochen rhuax* Wetmore, from Hawaii, received as a transfer from the United States Geological Survey.

One lot of 297 teeth of the pavement-toothed shark *Ptychodus mortoni*, from the Upper Cretaceous of Kansas, was received in exchange with George F. Sternberg.

The cetacean part of the collection was increased by some incomplete specimens from the Calvert, Miocene, of the Chesapeake Bay region, obtained from various sources.

### INSTALLATION AND PRESERVATION OF THE COLLECTIONS

The completion of the necessary construction work in converting the western half of the physical-geology exhibition hall into three large alcoves allowed Associate Curator Henderson to proceed with exhibition work there. As a result the entire meteorite display has been reinstalled in the middle alcove, especially designed for the purpose. The cases are illuminated from within, and series of transparencies of photomicrographs are displayed to show details of structure in both the stone and iron meteorites. A large map on the wall shows the locations of the recorded falls and finds for meteorites within the United States.

Steady progress was made in the consolidation of the department's three large mineral study collections into a single series.

In the grinding and polishing laboratory, B. O. Reberholt prepared 708 thin sections of rocks and fossils, cut and polished 10 meteorites, and polished sections of 119 minerals, rocks, and ores, and 23 large specimens for the Geological Survey. The work for the Geological Survey was done upon request of their strategic mineral division which required the preparation of polished surfaces of their larger specimens because of their lack of facilities to do this work. In all cases this

material is either at present in our collections or will be transferred later.

Exhibition work in the invertebrate paleontology halls included, besides the usual servicing of the collections, the rearrangement of the case in the foyer to bring it up-to-date. In paleobotany, Dr. C. E. Resser condensed the exhibits so that one large case could be removed to provide space for the growing vertebrate exhibits.

Just before the close of last year Dr. Resser made molds of many Cambrian types from Vermont, eastern Canada, Wyoming, and Nevada contained in the Museum of Comparative Zoölogy, Peabody Museum, and Columbia University. About five weeks were required to cast these types and install them in the collections, and later six weeks were devoted to their photography and study so that they could be understood and coordinated with species from other beds of the same age.

Associate Curator Cooper replaced 150 three-inch drawers with the two-inch size, thereby gaining additional storage space for the ever-growing brachiopod collections. Most of the large collections of Pennsylvanian fossils from north-central Texas were cared for during the year. These collections, according to the usual practice in the division, were sorted into three groups, the first consisting of the choice specimens, which were placed in the biological collections, the second a representative stratigraphic lot, and the third numerous specimens for exchange. About two months were devoted to the preparation, arrangement, and partial study of the Devonian fossils collected in the Mississippi Valley. These yielded a small number of exceptionally fine biological specimens, but the bulk of the material remains in the stratigraphic series.

During the year the etching program, which has been a feature of Dr. Cooper's work for some years, was carried on rather slowly because of the difficulty in obtaining acid. In the latter part of the year, however, several carboys were used to good advantage, resulting in about six drawers of choice silicified material most of which was obtained from blocks of the Word limestone of Permian age. In order to care for this silicified material more safely, all specimens of these fragile fossils were moved into one room where adequate facilities have been made for housing them properly. While awaiting completion of arrangements for his Mexican trip, Dr. Cooper sorted and mounted the many delicate silicified trilobites from the Ordovician rocks of Virginia.

The head curator's work on the collections was as follows: Finding that portions of the graptolite collection had been misplaced in last year's transfer, he prepared and reduced the additional material so that the entire stratigraphic series is now contained in 120 standard drawers. A further condensation of collections was accomplished by picking Ostracoda, small corals, and Bryozoa from dredgings from the

Philippines, Gulf of Lower California, and Gulf of Mexico and segregating them in their proper places in the study series. He prepared about 30 drawers of shale fragments, representing ten Paleozoic formations and crowded with the microscopic fish teeth known as conodonts, and either identified or roughly classified the resulting specimens for future studies. Several six-foot tiers of Silurian fossils from England, Sweden, and the Mississippi Valley were greatly reduced by proper preparation and the resulting specimens assigned to biologic and stratigraphic sets. More than 650 thin sections of corals and Bryozoa, prepared with Mr. Reberholt's assistance, and the addition of many species determined from their study, record the work accomplished in these two divisions of the biologic series.

Lloyd G. Henbest continued the organization and general care of the Foraminifera collections. A new kind of storage tray developed from existing materials was found advantageous.

Curator C. W. Gilmore, in reporting for the division of vertebrate paleontology, states that mounting of the composite skeleton of the Permian reptile *Edaphosaurus boanerges*, mentioned in last year's report, was completed and the specimen installed in the exhibition series. The same can be said for the massive skeleton of *Uintatherium robustum*, a large primitive mammal.

Norman H. Boss, chief preparator, in addition to supervising preparatory work in the laboratory, has nearly completed mounting the small deerlike *Hypertragulus*. When not engaged in the articulation of skeletons for exhibition, Mr. Boss prepared numerous specimens from the 1942 collections and a number of delicate fossils from other sources. Preparators Thomas J. Horne and Arlton Murray were continuously employed in the preparation of various specimens, especially those of the 1942 summer's collection, with the result that more than one-half of this collection has now been prepared and placed in the study series.

Assignment to this division of exhibition space formerly occupied by the paleobotanical collections has permitted a limited rearrangement of the overcrowded east range. These changes, with the addition of several important skeletons, have resulted not only in a more logical arrangement of the specimens involved but also in a much improved appearance of the exhibition as a whole.

### INVESTIGATION AND RESEARCH

The head curator completed a paper on the Siberian corals known as *Parafavosites*, for publication by the Journal of Paleontology, and another on the Ordovician cystids of Oklahoma now in press by the American Journal of Science. He was occupied for several weeks in reading proof on the "Bibliographic and Faunal Index of Paleozoic Pelmatozoan Echinoderms," published later in the year as Special Paper No. 45 of the Geological Society of America. Research work

on his monographic study of Lower Paleozoic corals proceeded in connection with upbuilding the collection of thin sections of fossil corals in general.

Dr. C. E. Resser reports further advance in several research projects. About three months were devoted to production of final manuscript on his Cambrian summary, following which nearly seven months were spent on the descriptions of Upper Cambrian trilobites, and finally several smaller papers were advanced toward completion. Dr. Cooper had to postpone certain other matters to concentrate on the study of the Illinois Devonian, a subject designed to perfect correlations of the Devonian in Illinois and elsewhere in the Mississippi Valley and also to identify Devonian subsurface strata as a part of the war program. After preparing the fossils and starting their study he was interrupted by the assignment to Mexico on another stratigraphic problem. Although most of his time in the office was spent on the Illinois work, some days were devoted to illustration of the Chazyan brachiopod monograph and to adding descriptions to the manuscript. Forty plates for this research were made, but it is estimated that six months more will be required for its completion.

Dr. T. Wayland Vaughan, associate in marine sediments, has carried on his studies on the Cenozoic faunas and corals. In joint authorship with Dr. John W. Wells, he published a volume of importance to all students, a résumé of post-Paleozoic coral genera, as Special Paper No. 44 of the Geological Society of America.

Curator Gilmore completed and submitted for publication a manuscript entitled "On the Osteology of *Testudo praeextans* Lambe, with Notes on Other Species of *Testudo*, all from the Oligocene of Wyoming." A short manuscript entitled "Notes on Two Newly Mounted Fossil Vertebrate Skeletons in the United States National Museum" was nearly finished and a beginning was made on a "Review of the Two Medicine Fauna, Upper Cretaceous of Montana." As time permitted, the type catalog was kept current.

As a result of the investigations in Mexico being conducted for the U. S. Geological Survey by Dr. W. F. Foshag, curator of mineralogy and petrology, there was published during the year a paper entitled "Tin Deposits of the Republic of Mexico," by Dr. Foshag and Carl Fries, Jr. (U. S. Geol. Surv. Prof. Pap. 935–C). This report includes five geologic maps of mines and placer areas and forms the third chapter of the series "Geologic Investigations in the American Republics."

E. P. Henderson, associate curator, has checked the meteorite literature, kept the records current, and also indexed the large file of photomicrograph negatives. He gave also some time to revising Dr. George P. Merrill's portion of "Minerals from the Earth and Sky" in the Smithsonian Scientific Series soon to appear in a new edition. Dr. Stuart H. Perry, associate in mineralogy, completed his

report on "The Metallography of Meteoric Iron," which is being published as a bulletin of the National Museum.

James H. Benn has under preparation a card index of all the minerals and their varieties now in the collections, a file that when completed will be of real service to the division. A card index of described and discredited minerals is under compilation from the literature. The completion of these two files will furnish a complete check list of all the minerals now in the collection as well as those still needed.

Members of the Geological Survey with offices in the Museum, who were not otherwise occupied with war duties, pursued their studies and research upon the collections throughout the year as usual. Dr. R. W. Brown completed and published two papers upon interesting fossil plants, one on a fossil grapevine occurring with the opal deposits in the Virgin Creek Valley of Nevada, and the other on a climbing fern. A field trip along the Paleocene-Eocene contact in Georgia, Alabama, and Mississippi made for the purpose of identifying the age of bauxite beds resulted in some excellent fossil plants new to the collections.

Studies of the Springer echinoderm collection proceeded during the year with Dr. Edwin Kirk specializing upon this work and the head curator occupied with the illustration and description of Ordovician crinoids and cystids whenever other duties permitted. Three publications by Dr. Kirk were issued, while manuscripts of three papers on the Upper Paleozoic Inadunata crinoids were completed.

Dr. Charles Butts spent the field season of 1942 in the northern end of the Valley of Virginia, where he prepared a detailed geologic map in the course of his studies. In the office he was occupied with the study of the fossils collected and the preparation of a volume on the subject. Dr. L. W. Stephenson spent some months on the study of the Lewisville fauna of the Upper Woodbine formation in continuation of his researches on the Cretaceous faunas of Texas. Dr. Ralph Imlay continued his studies of the Jurassic collections and centered his attention on the subsurface geology of the Gulf coast region in order to discover the eastward extent of the possible oilfields. He has nearly completed the correlation charts for the Jurassic of the Southern States and has in preparation two reports, one on the Cretaceous formations of the Greater Antilles, Central America, and Mexico and the other on the subsurface Lower Cretaceous Comanche rocks.

Most of the specialists in the study of the Cenozoic collections have been engaged in war duties the greater part of the year. Drs. Julia A. Gardner, C. Wythe Cooke, and W. P. Woodring were occupied with the collections during short intervals in their field operations.

There were 164 lots of material referred officially to the department for examination and report, these made up in some instances of large numbers of specimens requiring attention. The division of mineralogy

and petrology was responsible for 69 of these reports, and general geology for 74, while the remainder were assigned to the other divisions. Many inquiries were answered directly by members of the staff and numerous reports were made on specimens brought in person to the divisions.

In invertebrate paleontology assistance was given to the Tennessee Valley Authority, the U. S. Geological Survey, the Geological Survey of Illinois, Michigan State College, and the University of Chicago.

Curator Gilmore reports that the chief aid rendered to outsiders other than the loan of specimens has been the identification of materials sent in for determination. He has also cooperated with other Government bureaus in matters of opinion pertaining to paleontological matters.

Associate Curator Henderson spent some time with a committee preparing a classification and index list for natural, manufactured, and synthetic gem and ornamental stones, a cooperative task with the Bureau of Foreign and Domestic Commerce and the Tariff Commission. Several collections of minerals were prepared for foreign use, namely for the Instituto de Ciencias del Estado, Mexico; the Science Museum of the Institute of Jamaica; and the Seminario Conciliar Metropolitano, the National University and the Centro Cultural Paraguayo-Americano, all of Asunción, Paraguay. During the year 79 persons interviewed Mr. Henderson for the determination of gem stones.

### DISTRIBUTION AND EXCHANGE OF SPECIMENS

Geological materials distributed during the year to various educational and research institutions and war agencies, as well as to individuals engaged upon scientific investigations, were as follows: Gifts, 874 specimens; exchanges, 121 specimens; and loans for study, 712 specimens. These include mineralogical and invertebrate and vertebrate paleontological specimens, but four mineral and rock collections sent as gifts to South American and Mexican institutions, through the Division of Cultural Relations of the Department of State, should be noted.

### NUMBER OF SPECIMENS UNDER DEPARTMENT

The estimated total number of specimens indicated below as assigned to the three divisions of the department is computed by adding to the figures of last year the number representing the difference between the number of specimens received and those sent out. The early estimates were approximate so that the present sums are likewise.

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|---|---|
| Mineralogy and petrology | 256,058 |
| Invertebrate paleontology and paleobotany | 2,398,120 |
| Vertebrate paleontology | 29,430 |
| Total | 2,683,608 |

## DEPARTMENT OF ENGINEERING AND INDUSTRIES

(CARL W. MITMAN, *Head Curator*)

THOUGH the operation of the department under war conditions became more difficult as the year progressed, the general condition of the collections is good. The war has affected the work in a variety of ways. Although the total accessions recorded by the department were greater in number than in any one of the previous five years, one-fifth of them were increments to a war poster collection being assembled by the division of graphic arts. The engineering division experienced a drop in accessions as compared with the preceding year, due mainly to the absence of two experienced staff members, both serving with the armed forces. Again, the time consumed in research and furnishing information to war agencies, assistance in the training of war-agency personnel, and the department's experimental model construction contracts with war agencies curtailed the work planned for the improvement of the study collection.

The head curator, Carl W. Mitman, carried forward during the year several special assignments. One of these covered the work of directing the transportation and storage outside of Washington of about 120,000 pounds of the most valuable and irreplaceable specimens and materials in the Museum's collections. This task included also the organization of a 24-hour custodial service to guard and protect the stored material, which continues in charge of Mr. Mitman for the duration of the war. He directed also the work of the Smithsonian War Committee, of which he is chairman. This committee, charged with the coordination of Smithsonian activities toward the war effort held weekly meetings throughout the year. A statement of its work appears in the Report of the Secretary of the Smithsonian Institution.

In February 1943 Frank A. Taylor, curator of the division of engineering, was granted military furlough, was commissioned captain in the Army, and is serving with the Anti-aircraft Branch of the Coast Artillery. The loss of his stimulating leadership is felt keenly by the division. Until his return the head curator will endeavor to carry on Captain Taylor's duties. On August 1, 1942, Fred C. Reed, senior scientific aide of the division of engineering, was appointed to the position of associate curator, vice Lt. Paul E. Garber, now serving with the Bureau of Aeronautics of the Navy Department. Kenneth M. Perry at the same time was advanced from exhibits worker to senior scientific aide in this division. On December 1, 1942, Burlie Parks was transferred from the Museum property office to the position of exhibits worker formerly held by Mr. Perry. All these division staff appointments are for the duration of the war only.

On July 31, 1942, Dr. Wallace E. Duncan, assistant curator, section of chemical industries, resigned. The vacancy caused by his resignation was filled November 2, 1942, by the transfer of Joseph W. Schutz from the Social Security Board.

## ACCESSIONS

Accessions for the year totaled 216, comprising 2,266 specimens. This is an increase of 34 accessions and a decrease of 149 specimens compared with the previous year. The accessions were distributed as follows: Engineering, 25 (438 specimens); crafts and industries, 74 (856 specimens); and graphic arts, 117 (972 specimens). Of these the following are worthy of special mention:

*Engineering.*—From the viewpoint of engineering history in the United States, the most interesting and valuable accession was an original truss of an iron railroad bridge designed, constructed, and erected by the Reading Railroad Co. in 1845. The specimen, approximately 34 feet long, is the only remaining part of the first iron-truss, double-track railroad bridge built in America, which is also believed to be the first iron-truss bridge erected in the United States. The bridge spanned a small stream and highway near Manayunk, Pa., and continued in service until 1901. The truss is a combination of cast and wrought iron, the compression members being of cast iron, and all tension members of hand-forged wrought iron. It was presented by the Reading Co.

Early in the war there was instituted as part of the training program of our armed forces the use of sets of accurately made scale models of the types of airplanes used by the United Nations and the Axis, for the purpose of teaching recognition at sight of both friend and enemy. Lt. Paul E. Garber, formerly of this division, was actively engaged in the development of this program, and through him the Museum was fortunate in receiving two groups of these models for addition to the aircraft collection. One set of 39 all-metal models was presented by the Bronzart Metals Co., and a second series of 82 plastic models, distributed throughout the Navy and used in training for recognition, range estimation, and gunnery practice, was presented by the Cruver Manufacturing Co.

Toward the close of the first World War, aircraft-propeller manufacturers turned their attention to the manufacture of all-metal propellers in substitution for wooden propellers then in use. The late Dr. S. Albert Reed was active in this work and in due time invented an aluminum-alloy propeller that today is recognized as one of the early successful types. This first full-size model, known as the D–1, now forms part of the Museum's extensive propeller collection, having been bequeathed to the Museum by Dr. Reed.

Of current interest is the accession from the Standard Oil Co. of New Jersey of a scale model of the Bayway Unit Polymer Plant for producing high-grade motor fuel and aviation-gasoline blending stock.

Die casting today is one of America's great industries, following many years of intensive research and experiment. One of the pioneers in this field was H. H. Franklin, maker of the Franklin air-cooled automobile, who personally presented four die castings made by him in his plant at Syracuse, N. Y., before 1900. The specimens constitute excellent examples of the early attempts to produce finished castings in metal dies.

For many years the section of mineral technology of this division has contained educational exhibits on abrasives, one of which was that of the Norton Co. During the year this company modernized the entire exhibit, making an entirely new installation of 178 specimens. The exhibit includes grinding wheels, sharpening stones, laboratory apparatus, specimens of work accomplished, and colored transparencies of grinding machine operations of many sorts. The exhibit is highly interesting and instructive and has been frequently studied by the personnel of war agencies.

*Crafts and industries.*—Additions to the collections of this division totaled 856 new specimens, which were distributed as follows: Textiles, 210; woods and wood technology, 84; chemical industries, 214; medicine and public health, 473. Several of the accessions deserve special comment:

In connection with gifts of previous years the Cotton-Textile Institute presented specimens of American cotton fabrics selected by a committee of experts as the most representative materials for the spring and summer seasons of 1943. William Skinner & Sons gave a cap ribbon of a new type adopted by the U. S. Navy, in which letters in gold leaf are fused into a cut ribbon of acetate rayon, instead of the silk ribbon embroidered with gold thread formerly used; the American Viscose Corporation contributed a large panel illustrating the manufacture of rayon from wood and cotton by the viscose, cuprammonium, and acetate processes, and specimens of viscose rayon fabrics woven from filament and spun yarns; and the American Bemberg Corporation added to its former gifts skeins and cones of cuprammonium rayon yarn and fabrics woven with this yarn alone and in combinations with silk, spun silk, spun rayon, viscose rayon, and cotton. The Singer Sewing Machine Co. added to its contributions, begun in 1897, a new surgical stitching instrument complete with extra needles and case and a felt sampler showing numerous types of surgical suturing.

To the exhibits of wartime parachute fabrics there were added specimens of Nylon and cotton woven webbings used for the harness connecting the aviator to his parachute, a gift of the Phoenix Trim-

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ming Co. Dr. H. L. Shantz contributed fine specimens of bark cloth, and a mat and bags woven from the fiber obtained from the leaves of a species of *Raphia*, which were collected by him in East Africa and the Belgian Congo in 1920. One of the specimens of bark cloth is remarkable in size, being 8 feet wide and 22 feet long. Pieces of the bark cloth are used as wiping cloths or waste by locomotive engineers in the Belgian Congo, while the larger raffia bags are used for transporting kernels of the oil palm.

The collection of old-time needlework and textile handicrafts was increased by six gifts. Samplers were presented by Miss Florence W. Layton, Mrs. M. S. Eakin, and Mrs. Marion J. McLean. Miss Mary E. Johnston presented an all-white, homespun, embroidered, cotton counterpane dated 1822; Mrs. E. G. McFadden, a bordered, cotton applique quilt, made by her great-grandmother at Charleston, S. C., in the early 1800's; and Mrs. Hannah Field Vosper, one length of a single-width homespun carpeting, hand-woven in a stripe pattern using tie-dyed wool warp and cotton weft.

New specimens from 17 contributors were received for an exhibit of alternates and substitutes arranged by the section of chemical industries. This exhibit is of particular interest at this time since it is made up of various materials and techniques developed recently to cope with shortages of war materials. Many of the substitutes will find extremely useful peacetime application later, for often they are better than the substances they were developed to replace.

The most valuable pharmacy additions were as follows: Medicines for glandular diseases; a collection of surgical sutures; a series of specimens which depicts how typhus vaccine is made and used; early American medicine bottles; and a sugar analysis outfit. Historical objects of importance received during the year include the following: A model illustrating chemical transitional steps in the original American synthesis of vitamin $B_1$; old medical and pharmaceutical relics; contact eyeglasses in plastic, glass, and a combination of plastic and glass; and the latest American medical standards. The public health additions were a collection of food models arranged to show the daily food requirement; dangerous disease and vital statistics placards; glass statistical charts pertaining to cancer; food value charts; and specimens of North American and South American lypholized anti-snake-bite serum. The section of materia medica received crude drugs and pharmaceuticals to replenish those used for study and tests.

Important additions to the wood collection included 20 microscopic mounts of specimens of woods belonging to the genus *Casearia*, prepared from authentic wood specimens in the Museum's collection that had been sent to the Department of Botany, University of Toronto, where they were prepared by, or under the direction of, Dr.

M. W. Bannon. J. L. Stearns presented an attractive set of 20 common woods indigenous to South Africa. This region produces a number of truly fine timbers, samples of which are included in the set. The Bureau of Ships, Navy Department, transferred to the Museum 13 samples of tropical American woods that they had received for testing in some phase of their wartime shipbuilding program.

*Graphic arts.*—An unprecedented total of 117 accessions, surpassing that of any previous year, was received by this division. Of these, 82 (859 specimens) were assigned to the graphic-arts section and 35 (115 specimens) to the section of photography.

A collection of 651 war posters from Government agencies and private industries, still in the process of growth, constitutes a valuable addition to the pictorial and historical record of our participation in the war. Many were designed by outstanding American artists in both the fine art and commercial fields, a fact that enhances their purely historical value. Three Russian posters, the gift of Dr. Aleš Hrdlička, are interesting examples of the hand-stenciled method utilized by artists in territories where printing facilities may be limited. Russian guerrilla artists produce posters by this method. Another gift from Dr. Hrdlička was a set of 40 cartoons by Russian artists, all anti-Nazi lampoons published in offset lithography by VOKS, the Soviet organization for promoting cultural relations with foreign countries. One of the handsomest gifts of the year consists of 11 drypoints of figure studies presented by George T. Tobin, a professional illustrator who began working in drypoint in 1931. His work is characterized by a delicacy and suavity most unusual in the drypoint medium. Fourteen wood engravings and a bookplate (wood engraving) by the late James Bann, with a photographic enlargement of one print to illustrate the wood-engraving technique, were received as a gift from Miss Helen Bann. The technique of Mr. Bann was very simple and clear-cut, and provides a clear explanation of this method of printmaking.

One of the most deceptive of art objects is the transfer print, which, to the untutored eye, appears to be a miniature painting on glass. One of these prints, a portrait of Maj. Gen. Zachary Taylor, was given to the division by Miss Esther Karst, of the John Karst Museum. In this process, popular about 125 years ago, a small engraving or etching was securely attached with a varnish face downward to a piece of glass. When the varnish was thoroughly dry, the paper was rubbed away from the back of the print, leaving the lines of the engraving on the glass. The next step was to apply oil colors over the engraved lines. The final result is viewed from the unpainted side of the glass. This process is not to be confused with direct painting on the back of glass, another method that was practiced extensively. A fine mezzotint, "Thunderhead Crest," was presented by the artist,

Reynold H. Widener. An interesting feature of this print is the fact that the plate was prepared in the manner of the early mezzotints, by using the roulette wheel to roughen the plate rather than the more modern rocker. Mezzotint requires a plate systematically roughened and pitted, so that, if inked, the plate would print as a solid black. By scraping away the ink-holding pits so that the amount of printing ink is dependent upon the depth of the pits, it is possible to obtain the subtlest gradations of tone from black to white. Once a very popular method of printmaking, particularly in England, this process is seldom used at the present time, although fine results are obtainable.

Among other accessions of interest are "Back to Earth," an etching by George H. Wright, the associate members' print of the Society of American Etchers; a lithograph made in 1835 by Fra Pagliusto after a self-portrait by Bartolomeo Pinelli, the gift of Miss Josepha Whitney; and a photomechanical reproduction in offset lithography of a water color, "Charles Street Meeting House," by Dwight C. Shepler. This print, made in seven colors, is a remarkable example of printing that resembles a water color so closely that only a trained eye can detect the fact that it is a print. This reproduction is the gift of the American Writing Paper Corporation.

The most important accession received by the section of photography was a Woodward Solar Camera secured from Miss Edna Billings. No other is known to exist, and this one came to light largely as a result of the nation-wide drive for scrap metal. This type of camera was manufactured in Baltimore, Md., under patents dated between 1857 and 1877, and was the very first means available to commercial photographers during the latter half of the nineteenth century for making photographic enlargements on the then slow bromide paper, using the sun as a source of illumination. Enlargements so made were known as solar prints.

Another noteworthy accession was a collection of 26 pieces of photographic equipment presented by A. C. Stebbins. The material came from the studio of his brother, the late A. B. Stebbins, and includes a tintype camera with four lenses, plate holders dating from 1881, the time of the general introduction of the dry plate, and an apothecary's scale used to weigh photographic chemicals. Of historical importance was the construction of a Cassegrain camera in the Museum's shop from drawings by Dr. A. J. Olmsted, from parts received as a gift from Henry G. Fitz. This type of camera was used experimentally in the early daguerreotype days, but, as the image was small, it was never popular. The design was that of the reflecting telescope built by Cassegrain, an early French astronomer. Ransom Matthews presented 11 pieces of historical motion-picture film from the Earl Thiesen collection, and 10 hand-made lantern slides in color of 1860, were the

gift of Keith and Dione Brady. Forty-four pictorial photographs were added to the permanent collection. These include eight dog portraits by Arthur S. Mawhinney, one of the country's outstanding dog photographers. His "Champions on Parade," as his pictures are called, represent a prize winner of each breed. Frank R. Fraprie, owner and editor of *American Photography*, presented eight pictorial photographs from his collection, all splendid examples of his work, and Will Towles, the well-known teacher and demonstrator of photography, gave the section 10 portraits representative of his work over the past 20 years. The marine photographer John R. Hogan presented six prints in his particular style, and Mrs. Patricia MacDonald Tutchings donated seven framed portraits made by her celebrated father, the late Pirie MacDonald. The portraits are of Joseph Pennell, Theodore Roosevelt, Frederick W. MacMonnies, John Masefield, Elihu Root, Roald Amundsen, and a self-portrait of Pirie MacDonald.

### INSTALLATION AND PRESERVATION OF COLLECTIONS

The major task accomplished on the care of the collections was the rearrangement and reinstallation following the evacuation of irreplaceable materials. From the present appearance of the exhibition halls the average visitor is not aware that 130 boxes and crates containing approximately 2,000 specimens have been removed, the majority of which had been on exhibition. A second major activity was the installation of new accessions, the removal of obsolete educational exhibits, and the rearrangement and classification of stored collections in modern fireproof storage cases. The more important work in these various categories accomplished by the several divisions and sections is here described:

*Engineering.*—The early part of the year was devoted to packing the heavier and bulkier engineering specimens marked for evacuation. The great variety of materials and the great differences in their size and weight made the task a difficult one, the specimens ranging from a unique watch movement to a full-sized airplane. The boxes and crates when packed were stored by necessity in the exhibition halls until removed from Washington, and when they had been shipped much work was required to rearrange and reinstall the collections remaining. Work on improving the arrangement of collections in the Aircraft Building undertaken the previous year continued. Some of the propellers in the large propeller collection were reinstalled, but there are still many not placed because of the impossibility of obtaining suitable metal fittings. In the section of mineral technology there have been on display for 25 or more years educational exhibits pertaining to the technology of certain mineral industries, particularly lime, cement plaster, and coal. While these constituted accurate expositions of the technology in vogue at the time of their accession,

technologic changes since then have made these exhibits obsolete. The large models pertaining to the lime and cement plaster industries were therefore removed from exhibition. For a similar reason the large coal-mine model, which for the past 30 years has occupied the central portion of the coal court, was also dismantled. The model had been constructed originally for exhibition at the Louisiana Purchase Exposition, St. Louis, Mo., in 1904.

*Crafts and industries.*—Thirteen new installations and 25 reinstallations and rearrangements of the textile collections were carried out during the year. Most of the reinstallations came as a result of the removal of all irreplaceable materials to safe quarters outside of Washington. On the galleries devoted to chemical industries, five new installations and four new rearrangements were made, and three exhibits were removed and stored. Four of the new installations were of newly acquired material relating directly to the war effort. In the division of medicine and public health, the principal installation was the placing of a gigantic chemical equation showing the steps in the synthetic manufacture of vitamin $B_1$. The exhibit is about 20 feet long and 5 feet high, with the center portion illuminated. Other installations were those illustrating the location, appearance, and functions of endocrine glands and the manufacture of vaccines. In the public-health section new exhibits were installed relating to the part diet plays in the maintenance of health.

Throughout this division deteriorated specimens were replaced by new ones, or if this could not be done, they were retired to storage for possible future reference. There was periodic examination and fumigation of perishable materials and many new labels were prepared.

*Graphic arts.*—The most important activity in this division was the completion of the entrance hall to the graphic-arts exhibitions, formerly a dark, confusing, and unsightly corridor unsuitable for exhibition purposes. It is planned to use the area for the special monthly exhibitions arranged annually by this division. In all other respects the major work on the collections had to do with the improvement of exhibition technique.

*Special exhibitions.*—In addition to these various activities, special exhibitions were prepared or arranged as follows:

ENGINEERING

Two special exhibitions pertaining to engineering were held during the year. During the month of January, the Washington Ship Model Society held its annual exhibition in the boat hall in the Arts and Industries Building. The display was widely attended and attracted considerable attention. In April, the Metropolitan Society of Model Engineers held its annual exhibition of model railways. This was installed in the east hall of the Arts and Industries Building and continued for a month.

### Crafts and Industries

A special exhibit was prepared in celebration of Pan American Day, April 14, to show specimens of the principal exports of the republics comprised in the Pan American Union. This is to be continued on exhibition indefinitely in the south hall of the Arts and Industries Building.

### Graphic Arts

Ten monthly special exhibitions were held in the foyer of the Natural History Building and two in the Smithsonian Building, as follows:

#### NATURAL HISTORY BUILDING

July 15–August 30: "Prints by 24 Masters," selected from the collection of the division of graphic arts.
September: Prints by "Pop" Hart, selected from the collection of the division of graphic arts.
October: 37 pencil drawings by Mrs. Beatrice Field, of Winchester, Mass.
November: 35 wood cuts and linoleum cuts by Norman Kent, of Geneva, N. Y.
December: 35 etchings by Ralph Fabri, of New York, N. Y.
January: Color prints by the American Color Print Society.
February: 18 lithographs by Peter Hurd, of San Patricio, N. Mex.
March: 27 etchings and 7 pen drawings by Mrs. Helen Miller, of New York, N. Y.
April: 35 etchings by James McBey, of New York, N. Y.
May: 12 drypoints and 20 wax-pencil drawings by George T. Tobin, of New Rochelle, N. Y.

#### SMITHSONIAN BUILDING

May: 40 anti-Nazi cartoons in offset lithography by Russian artists.
June: 35 prints by the National Association of Women Artists, Inc., of New York, N. Y.

### Photography

Fifteen special photographic exhibitions were held, twelve in the Arts and Industries Building and three in the foyer of the Natural History Building:

#### ARTS AND INDUSTRIES BUILDING

July: 70 prints by Gustav Anderson, of Amityville, N. Y.
August: 60 prints by the Revenue Camera Club, of Washington, D. C.
September: 30 prints by Alajos Schuszler, of Arlington, Va.
October: 50 prints by Axel Bahnsen, of Yellow Springs, Ohio.
November: 60 prints by John R. Hogan, of Ardmore, Pa.
December: 54 prints by the Camera Club, of New York, N. Y.
January: 100 prints from the Metropolitan Camera Club Council, of Rockville Center, N. Y.
February: 74 prints from the American Photographic Publishing Co., of Boston, Mass. These prints are the originals from which the illustrations in the "American Annual" are made.
March: 66 prints from the Telephone Camera Club of Manhattan, New York, N. Y.
April: 60 prints by the late Thomas O. Scheckell, of East Orange, N. J.
May: 99 prints from "Popular Photography," Chicago, Ill.
June: 61 prints by Edward F. Raynolds, of Central Valley, N. Y.

NATURAL HISTORY BUILDING

March: 204 prints from the Potomac Appalachian Trail Club, of Washington, D. C.
April: 31 prints "Our Navy in Action" from the Office of Public Relations, Navy Department, Washington, D. C.
May: 113 prints, Arlington Camera Club, of Arlington, Va.

### INVESTIGATION AND RESEARCH

Investigation or research by the staff was largely that required to furnish information to correspondents and to students calling on staff members, or the identification of materials submitted to the Museum by private individuals and Government bureaus. As time permitted, individual staff members pursued their continuing studies in specific fields of industrial and engineering history.

Hardly a day passed during the year that assistance was not rendered by a member of the staff to outside investigators through the use of Museum material. In engineering this was largely in the transportation field and was especially voluminous in aeronautics. In crafts and industries, assistance ranged from furnishing drawings and advice on the adaptation of common and automatic loom shuttles to a military device, to the furnishing of wood specimens and drugs for wartime studies.

Assistance rendered other Government bureaus was considerably greater in volume than in the previous year. The majority of requests for aid originated with war agencies and covered practically every field of engineering and industry with which the staff is competent to deal. For example, the rubber-plant investigation project of the Agricultural Research Administration of the Department of Agriculture was aided by a detailed study of cross sections of "chilte" trees from Mexico. For the Quartermaster Corps, Marine Design and Construction Division, studies were conducted on the suitability of loblolly pine for Army boat construction. Again, special courses of instruction on the identification of the various methods of printing were prepared and given to classes of document inspectors, Federal Bureau of Investigation, Department of Justice. Positive identification was made for this bureau of the source of rotogravure printing of an Axis propaganda pamphlet. For the purpose of furthering cooperation with the Latin American republics, the department rendered specific aid to the Board of Economic Warfare and to the Coordinator of Inter-American Affairs, both in the field of handcrafts and handcraft tools and in steam automobile design.

The information given to private correspondents and visitors ranged from advice on the growing of medicinal herbs and the preservation of leather objects to the demonstration of rubber synthesis. It is estimated that the department gave attention to 1,000 requests of this nature during the year.

### DISTRIBUTION AND EXCHANGE OF SPECIMENS

Materials distributed from the department included specimens, photographs, and prints totaling over 4,000 items. The great majority of these were the specimens composing seven traveling exhibits relating to the graphic arts that were on circuit throughout the year and were lent for display 43 times. Specific loans of 502 items were made to educational institutions for exhibitions, demonstrations, and experimental purposes; 98 specimens of wood were exchanged with forestry schools and students of woods; 22 photographic specimens were exchanged for equally valuable specimens; and 9 specimens were given war agencies for investigation and experiment. During the year, too, 196 copies of drawings and photographs of the Historic American Merchant Marine Survey, preserved in the division of engineering, were made and distributed to private purchasers. This brings the total of such material distributed since the completion of the survey in 1938 to 3,522 copies.

NUMBER OF SPECIMENS UNDER DEPARTMENT

| | |
|---|---|
| Engineering | 17,425 |
| Textiles | 15,802 |
| Woods and wood technology | 13,034 |
| Chemical industries | 22,938 |
| Agricultural industries, including foods | 2,239 |
| Medicine and public health | 19,815 |
| Graphic arts, including photography | 46,876 |
| Total | 138,129 |

## DIVISION OF HISTORY

(THEODORE T. BELOTE, *Curator*)

THE past year in the division of history was a very active one. Among the many projects that have engaged the attention of the members of the staff are: The reinstallation of the exhibits in the north and west halls; a review of the status of the storage collections; the installation of a special collection of firearms, swords, and daggers presented by Ralph G. Packard; the installation of a special exhibition of firearms in the Natural History Building; the cataloging of a special collection of coins and medals presented by the Honorable Frederic A. Delano; and the packing of especially valuable material for protection from possible air raids.

The division lost, by transfer to another Government Department, the services of Miss Bertha L. Ferguson, clerk-stenographer, who for 15 years faithfully performed not only the routine clerical tasks of the division, but also many duties not usually associated with a purely clerical assignment. The position made vacant by Miss Ferguson's transfer was filled by the appointment of Miss Virginia Galt.

### ACCESSIONS

The number of accessions received was 46, which aggregated 1,903 specimens. In addition, there are included 11,899 specimens that had been in the collections for some years but had never been formally accessioned. These appear for the first time in the total given at the end of this report.

The three most important accessions of the year were in the fields of art, arms, and numismatics. The first of these, received by bequest, consisted of only five specimens, but they were of unusual interest not only because of their artistic and historical value but also because they completed the collection of paintings by J. L. G. Ferris, of Philadelphia, 71 of which were presented by Mrs. Ferris in 1932, 2 years after her husband's death. These five paintings are: "San Salvador," representing the first landing of Columbus in the New World in 1492; "The Knight of the Double Cross," depicting the ships of Henry Morgan on the high seas in 1671; "Here Comes the Bride," illustrating the marriage of Martha Custis and George Washington in 1759; "Mount Vernon and Peace," a portrayal of General and Mrs. Washington at home with guests in 1784; and "Painter and President," representing General Washington sitting for a portrait by Gilbert Stuart in 1795.

The finest accession of firearms, swords, and daggers received by the National Museum in recent years came as a gift from Ralph G.

Packard, of Morristown, N. J. The collection illustrates the evolution of firearms from the matchlock to the automatic of the present day and includes all the methods of ignition used during the past 350 years. The history of the sword and dagger is also well represented, among the edged weapons included being several knights' battle swords, Spanish, Italian, German, Scottish, and Swiss swords and rapiers of the fifteenth, sixteenth, and seventeenth centuries, and Scottish broadswords of the seventeenth and eighteenth centuries. Also in the collection are two fine sixteenth-century German crossbows. The firearms collection, beginning with the matchlock type, includes an elaborately inlaid Italian piece of the sixteenth century and a German wall piece dated 1612, likewise beautifully inlaid. Wheel locks, some of which are exceptionally fine, include a seventeenth-century light wheel-lock saddle gun of blunderbuss type, with saddle hook, probably of French origin. An American colonial matchlock has the name "Newtowne" burned on both sides of the stock. This piece can be dated definitely prior to 1636, as the name of Newtowne was changed to Cambridge in 1636, with the founding of Harvard College. There is a very fine specimen of the Snaphaunce type, while the flintlocks include both single- and double-barreled varieties, and an early Brown Bess, the regulation musket of the British services during the early eighteenth century. Among the many rifles and muskets are Kentucky single-barreled rifles and the double-barreled type known as "over and under"; a Committee-of-Safety musket of 1775–1776; a Charleville musket of 1763, illustrating the pattern from which the first United States muskets were made; the first type of United States pattern musket; a British rampart or boat gun; a 4-barreled American carbine, with the barrels turned by hand; a breech-loading flintlock rifle by Warsop, a forerunner of the Ferguson rifle; a breech-loading rifle designed by Maj. Patrick Ferguson used in the American Revolution by the British; a smooth-bore flintlock repeating gun of the Cookson type; a Forsythe rifle, one of the original Forsythe patents, having an interchangeable smooth-bore barrel. Among the pistols are wheel locks of the seventeenth century by Lazarino Cominazzo and representative pistols of German, Italian, Spanish, Dutch, and Portuguese origin. Sporting pieces are represented by a breech-loading smooth-bore piece akin to the Ferguson rifle and one of Spanish origin similar to the Forsythe. Included in the collection are many other fine pistols, rifles, and revolvers, ranging through the matchlock, wheel lock, flintlock, and percussion pieces to the Colt automatic. The four finest rifles in the collection were made under the supervision of Mr. Packard, who has used them in hunting game, both big and small, in many parts of the world. One of these rifles is equipped with telescopic sight and another with a specially designated thumb trigger. In addition to

the great collection of arms, Mr. Packard presented more than 300 publications, many of them old and rare, on the history of arms, armor, and firearms.

The accession of most importance to the numismatic collection was the large collection of coins, medals, medalets, and tokens presented by the Honorable Frederic A. Delano, of Washington, D. C., a Regent of the Smithsonian Institution. Of particular interest among the coins were several examples of the Graeco-Roman or Imperial Greek coins struck in western Asia and northern Africa at the time of the political domination of these territories by the Romans, from the first to the third centuries A. D., and examples of Roman coins, and of silver denarii, struck during the last two centuries of the Roman Republic. Representative of the Roman Empire are bronze coins struck during the period from Augustus to Honorius, 27 B. C. to A. D. 423; likewise portrait coins of the various Roman emperors and bronze coins of the Byzantine Empire struck during the period A. D. 490 to 640. Modern European coins include specimens struck between 1660 and 1900 for circulation in Austria, Belgium, Denmark, France, Germany, Greece, Great Britain, Italy, the Netherlands, Portugal, Russia, Spain, and Switzerland; also included are interesting coins of Argentina, Brazil, Chile, China, Colombia, Egypt, Japan, Mexico, Peru, Venezuela, and the United States.

Most of the medals in the collection originated in France or the United States and may be divided into three groups: Art, historical, and portrait medals. While the French art medals were struck largely during the period of World War I, the subjects included are not all martial in character, those of religious and artistic interest being also well represented. The art medals of the United States have as subjects not only art, but history, valor, and civics as well. French medals in the series of historical significance range from the Capture of Besançon in 1674 to the Signing of the Armistice in 1918. Portrait medals depict personages of importance not only to France, but to the United States. These include two of Benjamin Franklin, one by Godel and one by Dupres. Historical medals and medallions of the United States series range from the Founding of Norwalk, Conn., in 1649 to the Tercentennial Anniversary of the Landing of the Pilgrims in 1920. United States tokens includes series struck during the Civil War and during World War I.

The collection of mementos of famous personages was increased by the accession of a diamond and platinum bracelet that was presented by Elizabeth, Queen of the Belgians, to Mrs. Brand Whitlock, the wife of the United States Ambassador to Belgium during World War I. This bequest will be installed with the large collection of associated objects presented by Mrs. Whitlock in 1936.

The stamp collection was increased during the year by the addition of 826 specimens, transferred from the Post Office Department. Of special interest were stamps of Great Britain overprinted "M. E. F." (Middle East Force) for use in the former Italian territory of Eritrea, and recent issues of the Bahamas, Ceylon, Cyprus, Gibraltar, Malta, Newfoundland, Nyasaland, and Tonga; stamps issued by the Norwegian Government in London (used on letters carried by Norwegian warships and merchant vessels), and by the exiled Jugoslavian Government in England; and recent issues of the Soviet Union.

### INSTALLATION AND PRESERVATION OF COLLECTIONS

The division was represented in two temporary exhibitions of unusual interest and importance during the year.

The small portable writing desk on which Thomas Jefferson wrote the first draft of the Declaration of Independence was lent by special arrangement to the Library of Congress in April for exhibition during the celebration of the two-hundredth anniversary of the birth of Jefferson. A small reproduction of a United States flag of the period of the Revolution was lent for exhibition with the writing desk. This material was returned to the custody of the Museum at the close of the celebration.

Under the auspices of the department of anthropology an exhibition of historical firearms was arranged by Capt. Charles Carey, assistant curator of the division, and shown in the foyer of the Natural History Building from August to October 1942. Its purpose was the delineation of major changes that have taken place in firearms during the past three centuries. For comparison, a model of the 1800 United States military musket was shown beside a Garand M1 rifle, a current weapon of our fighting forces. A double-barreled flintlock fowling piece of the era of the American Revolution and the War of 1812 was placed in juxtaposition with an auto-loading shotgun of the present day. The evolution of the rifle and revolver was illustrated by numerous specimens ranging from the Brown Bess of the British Army in the American Revolution, through the military and machine rifles and machine guns of World War I, to the automatic pistols of the present day. Several cases of modern sporting arms were displayed, as well as handsome scale models of the 14-inch naval guns used by the United States Navy ashore in France during World War I, a model of the 7-inch field gun used by the United States Marines in France during that period, and 12 scale models of tanks and armored vehicles used by the German Army in the present war. In addition to the firearms mentioned, the exhibit included original patent models of certain inventions that proved to be more ingenious than practicable. Likewise furnished by the division for this exhibit were a related series of oil paintings illustrating the historical development of the United

States flag and a series of United States Army swords indicative of the historical development of the swords of this type made during the period 1776 to 1925.

Satisfactory progress was made during the year on the installation of the permanent exhibition series. For the past several years the staff has been building up in each of the division's exhibition halls a series of exhibits relating to one or two phases of the work of the division, rather than to miscellaneous subjects. As a result of such specialization, arms, costumes, naval equipment, military equipment, and numismatics each has its separate hall. The latest space to be so assigned was the west hall, where progress was made during the year in the installation of civil mementos. Four large floor cases contain mementos of the careers of the four secretaries of the Smithsonian Institution who guided its destiny during the period 1846 to 1927. Exhibited in this hall also are collections of china, glassware, silverware, and furniture, much of which was owned by leading American statesmen, including George Washington, Thomas Jefferson, Alexander Hamilton, and Henry Clay. Other materials in this hall have no personal significance but are of public interest from the standpoint of the development of the American home. The remaining space will be occupied by cases containing mementos of the lives and careers of other distinguished American citizens. In order to make space for the changes in the west hall, it was necessary to remove the entire series of military exhibits, most of which were reinstalled on the east side of the navy court. Certain of the civil exhibits were moved from the north hall to the wall cases on the north side of the navy court. This is a temporary arrangement that will be changed as soon as the wall cases on the south side of the hall have been renovated.

An improvement was made in the numismatic exhibition series during the year by the arrangement of the Moritz Wormser Memorial Collection, lent by the American Numismatic Association, in three cases in a corner of the coin and medal hall. A typical series of Greek and Roman coins was also installed in this hall. Improvement in the arrangement of medals was accomplished by the installation in the center of the hall of seven table cases containing a series of American medals representing the entire period of American numismatic history. Various phases of American history are now illustrated by medals, including Army and Navy medals, national and local medals of award, commemorative medals, Indian peace medals, and Presidential and portrait medals.

Except for the most recent issues received, the cataloging of postage stamps was practically up to date at the close of the year. The exhibition series has been kept current and the study series made readily accessible to philatelists and collectors desiring to see them.

Closely related in importance to the preservation of the collections are the careful preparation, the arrangement, and the preservation of the records. A specific piece of work begun by the curator during the year in this field was the preparation of an itemized classified list of the 765 specimens in the Frederic A. Delano collection of coins, medals, medalets, and tokens. Another accomplishment, important to both the installation and the preservation of the collection, was that performed by Capt. Charles Carey in connection with the Ralph G. Packard collection of firearms, swords, and daggers. This fine collection has been listed and installed in the arms court in historical sequence and fully labeled in such a manner that the public can readily interpret the scientific and historical value of the collection. Work begun several years ago in arranging the records of the historical collections to render them of the greatest possible value was continued.

### INVESTIGATION AND RESEARCH

During the past year the members of the staff continued their researches in connection with the history of arms, coins, flags, and stamps.

Forty-five lots of material were submitted by outside agencies and individuals for identification. The most important of these was a collection of about 300 coins and tokens from the Nevada State Museum and Art Institute.

Information concerning the designs and legends on continental and State paper currency used during the period of the American Revolution was given to a representative of the Office of Price Administration, to assist him in research on the depreciation in the value of this currency during the period mentioned.

Considerable time was given to investigation and research in cooperating with agencies contributing to the war. The War Department, in connection with the production of a new series of medals and decorations to be awarded for distinguished military service, appointed two artists to make a study of the Museum's exhibition and storage series of military medals and decorations of the United States and foreign countries. The division's military section, under the direction of Captain Carey, has repeatedly assisted various branches of the War Department in connection with military processes of definite scientific and technical importance in the fields of arms, ordnance, and military costumes. An achievement in the stimulation of public interest in the war was the preparation under the supervision of Captain Carey of a series of drawings of military and naval uniforms worn by women of the United States during World War I, for publication in a popular weekly magazine. The drawings were made from original uniforms in the collection acquired from the National Society of the Colonial Dames of America subsequent to World War I.

A contribution made to the progress of the war, although not within the realm of investigation and research, was the donation of a series of surplus German heavy-artillery weapons to the War Department to be scrapped and used for making steel for military use. These guns were captured by the American Expeditionary Forces during World War I and for more than two decades were on exhibition in the Smithsonian Park, under the auspices of the division of history in what was planned as temporary exhibition. Their usefulness for this purpose being at an end, it was calculated that approximately 100 tons of steel would be obtained from these weapons. It may be added that suitable examples of cannons of historic importance have been retained in our permanent collections.

NUMBER OF SPECIMENS UNDER DIVISION

| | |
|---|---|
| Art | 1,592 |
| Civil | 16,216 |
| Naval | 2,228 |
| Military | 27,006 |
| Numismatic | 50,600 |
| Pictorial | 16,747 |
| Philatelic | 410,656 |
| Total | 525,045 |

## ACCESSIONS DURING THE FISCAL YEAR 1942–43

*(Except when otherwise indicated, the specimens were presented, or were transferred, in accordance with law, by Bureaus of the Government)*

ABBOT, Dr. CHARLES G. (See under William H. Blackburne.)

ABBOTT FUND, W. L., Smithsonian Institution: 593 bird skins, 14 bird skeletons, mammals, and reptiles collected by Walter A. Weber, 1943, Tabasco Expedition (165267).

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, Philadelphia, Pa.: 27 mammals collected by Fred Ulmer (George Vanderbilt Sumatran Expedition) on Sumatra and Nias in 1939 (154388); (through Dr. H. A. Pilsbry) 6 Cuban urocoptids, representing paratypes of 2 species (163355); (through J. A. G. Rehn) 33 insects, representing 8 species, including 3 paratypes of 3 species (164725).

AGELASTO, M. A., Virginia Beach, Va.: 1 stomatopod (165035).

AGRICULTURE, U. S. DEPARTMENT OF:

*Bureau of Animal Industry:* (Through Dr. Wendell H. Krull) 1,592 land and fresh-water shells from Utah, Idaho, and Wyoming (163135).

*Bureau of Entomology and Plant Quarantine:* 1 amphipod, 73 isopods, and 6 mollusks (163593, 163999, 164127, 165050, 165203); (through M. C. Lane) 100 beetle larvae (wireworms), representing 12 species (163794); (through C. F. W. Muesebeck) 46,000 miscellaneous insects received from various shipments for identification during fiscal year 1942–43 (165432).

*Forest Service:* (Through Dr. Elbert L. Little) 1 plant (163741).

*Bureau of Plant Industry:* 764 grasses (163661); 1 cultivated plant (164485); 485 grasses (164655); trunk section of "chilte" tree from Mexico (164666); 2 ferns from Texas (164822); (through H. F. Loomis) 2 ferns from Haiti (163517); (through Dr. S. F. Blake) 1 plant (163740); (through B. Y. Morrison) 90 plants from Haiti (163838); (through Dr. O. F. Cook) 1 plant from Ecuador (163924); (through Dr. T. H. Kearney) 1 plant from Arizona (164057); (through Dr. Rogers McVaugh) 8 plants from Haiti (164429).

*Soil Conservation Service:* (Through Dr. S. C. Happ) 231 subfossil shells from alluvial beds on Galena River, Ill. (164054).

ALDERMAN, Sgt. I. M., Fort Belvoir, Va.: 1 white mole collected by donor at Fort Belvoir, May 19, 1943 (165315).

ALDRICH, Dr. JOHN W. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

ALEXANDER, CLARENCE H., and MENGES, C., Pittsburgh, Pa.: A framed letter from Thomas A. Edison to T. B. A. David, dated December 22, 1877, relative to experiments in inventing the transmitter (165127).

ALEXANDER, Dr. C. P., Amherst, Mass.: 2 nymphomyiid flies (164926, 164965); several thousand miscellaneous flies (164636); 108 tipulid flies, representing 73 species, 9 of which are represented by holotypes and all except 19 by paratypes (165126).

ALLARD, H. A., Arlington, Va.: 2,100 plants from Virginia and West Virginia (164748).

ALLEN, Estate of Col. EDWARD JAY. (See under Mary L. Allen.)

ALLEN, MARY L., Washington, D. C.: 6 California Indian baskets, 1 Haida basket, and 1 beaded knife sheath from the estate of Col. Edward Jay Allen, Pittsburgh, Pa. (163733).

ALLEN, PAUL, Balboa, Canal Zone: 1 crab collected at El Valle, Panama (163400); 2 plants from Panama (163773).

ALLIED CHEMICAL & DYE CORPORATION, *Barrett Division*, New York, N. Y.: 2 war posters (war-production incentives) (164352).

ALONZO, RAÚL, Santiago de Las Vegas, Cuba: 25 plants from Cuba (164194).

AMALGAMATED LITHOGRAPHERS OF AMERICA, Local No. 4, Chicago, Ill.: 2 war posters on conservation of industrial material, 12 duplicates (164353).

AMERICAN BEMBERG CORPORATION, New York, N. Y.: 2 cones and 2 skeins of cuprammonium rayon ("Bemberg") yarn and 19 fabrics woven with all "Bemberg" yarn and combinations of this with silk, spun silk, viscose, spun rayon, and cotton yarns (163834).

AMERICAN CAN CO., Maywood, Ill.: 16 containers for various purposes showing progressive savings of tin from old-style tin can to all-fibre container for liquids (164942).

AMERICAN COLOR PRINT SOCIETY, Camden, N. J.: 30 color prints by 24 artists comprising the American Color Print Society's special exhibition during January 1943 (164543).

AMERICAN MUSEUM OF NATURAL HISTORY, New York, N. Y.: 3 bird skins from New Guinea of forms new to the collections (163765); (through Dr. C. H. Curran) 7 tachinid flies, representing 3 species (163467); (through John T. Nichols): 1 eel taken by the Askoy Expedition (Dr. R. C. Murphy), at Aguacate Bay, Colombia, dredged from a bottom of gray sand and mud, 25 meters depth (164007).

AMERICAN NATIONAL RED CROSS, Washington, D. C.: 6 war posters (163548).

AMERICAN PHARMACEUTICAL ASSOCIATION, Washington, D. C.: 1 copy of "The National Formulary," ed. 7, 1942 (Official Copy No. 12704), for addition to the exhibit illustrating the history of United States medical standards (163782).

AMERICAN PHOTOGRAPHIC PUBLISHING CO., Boston, Mass.: 74 pictorial photographs, originals of prints reproduced in the American Annual of Photography for 1943 (164706, loan).

AMERICAN SOCIETY FOR THE CONTROL OF CANCER, New York, N. Y.: 3 glass statistical charts on the subject of cancer for the section of public health (164678).

AMERICAN VISCOSE CORPORATION, New York, N. Y.: 1 panel illustrating manufacture of rayon from wood and cotton by the viscose, cuprammonium, and acetate processes; also 17 viscose rayon fabrics woven from filament and spun yarns (163325); 6 bright and dull viscose and acetate rayon yarns, in skeins and wound on cones (163761).

AMERICAN WRITING PAPER CORPORATION, Holyoke, Mass.: 1 offset lithograph, photomechanically reproduced in 7 colors from original water color by Dwight C. Shepler, "The Charles Street Meeting House" (165329).

ANDERSON, GUSTAV, Amityville, N. Y.: 70 pictorial prints for special exhibition in July 1942 (163403, loan).

ANDERSON, Mrs. KATE M., Seaside Park, N. J.: (Through Fanny S. Sweeney) An Anderson shorthand typewriter used by the inventor, George Kerr Anderson (163997).

ANGELL, J. W., New York, N. Y.: 2 tiger beetles (164833).

ANNEREAUX, RALPH F., Sacramento, Calif.: Type specimen of helminth (164164).

ANNETT, MARY, East Jaffrey, N. H.: 1 strawberry root weevil (163600).

ANONYMOUS: 1 bird outline etching by Charles Knapton (1700–1760) after Giovanni da Udine, Italian painter of the 15th–16th century (163443); 1 skeleton of Kagamil winter wren and 3 trachese of Florida limpkin, found in collection without numbers (164727).

APOLINAR A., BROTHER. (See under Colegio de la Salle.)

ARCHINO, SAMUEL P., Trinidad, B. W. I.: 153 marine mollusks and 11 corals from Trinidad (164673, 165165).

ARLINGTON CAMERA CLUB, Arlington, Va.: 113 pictorial photographs for exhibition during May 1943 (165261, loan).

ARMOUR & Co., Chicago, Ill.: An exhibit illustrating types of glandular diseases and medicines used in their treatment, for addition to the section of pharmacy (163393); 3 samples of synthetic drying oils, ranging in viscosity from a thick honeylike liquid to a thin, almost watery oil (164760).

ATWOOD, HORACE. (See under Mrs. F. W. Wilkison.)

AUGUSTSON, G. F., Los Angeles, Calif.: 1 insect, allotype (163307). (See also under Allan Hancock Foundation.)

AVINOFF, Dr. A. (See under Carnegie Museum.)

AWL, Mrs. AIME M., Washington, D. C.: 1 bat captured in the U. S. National Museum, September 15, 1942 (164877).

BADGER, G. M., Jr.: (Through William B. McIntosh) Fragments of beaver skull collected by G. M. Badger, Jr., near Mountain Lake, Giles County, Va. (164279).

BAHNSEN, AXEL, Yellow Springs, Ohio: 50 pictorial photographs for exhibition during October 1942 (163901, loan).

BAILEY, H. H., Coral Gables, Fla.: 6 house mice collected at Lewis Bay, Labrador, in 1941, by Ernest Doane (164911).

BAILEY, Prof. L. H., Ithaca, N. Y.: 1 plant from Colombia (165415, exchange).

BAILEY HORTORIUM, Ithaca, N. Y.: 2 cultivated plants (164435, 164606, exchanges).

BAKER, Estate of FRANK C.: (Through Mrs. Grace H. Brewer) A large collection of mollusks including many types; also 17 bound volumes of papers published by Mr. Baker (163998).

BALES, Dr. B. R., Circleville, Ohio: 17 Florida marine shells, including 5 holotypes of new species (157334).

BALMER, Estate of CHARLES G.: (Through L. Taylor Hanson) White silk embroidered shawl (163904).

BALTIMORE & OHIO RAILROAD Co., Baltimore, Md.: (Through Robert M. Van Sant) A collection of photographs, drawings, lithographs, etc., comprising the Baltimore & Ohio Co.'s print material housed at Bailey Roundhouse, including the remaining Pangborn wash drawings (164780).

BANGSON, Prof. JOHN S., Berea, Ky.: 20+ parasitic copepods (163235).

BANN, HELEN, Cincinnati, Ohio: 14 wood engravings by James Bann, 1 photographic enlargement of wood engraving, and 1 bookplate (wood engraving) by James Bann (163828).

BANNAN, Dr. M. W. (See under University of Toronto.)

BANNER, A. H., Gig Harbor, Wash.: 4 lots of hippas (164123).

BARBER, H. S., Washington, D. C.: Pair of child's beaded and sinew-sewn skin moccasins from the Dakota Sioux (165347).

BARBOUR, Dr. T. (See under Harvard University, Museum of Comparative Zoology.)

BARECO OIL Co., Tulsa, Okla.: 6 samples of microcrystalline petroleum waxes extracted from crude oils, used in various commercial operations to replace imported waxes now difficult to obtain (164759).

BARNARD, T. A., Jackson Heights, New York, N. Y.: Steatite cooking pot found in sand and rock debris from recently excavated wall of a gravel pit located on the edge of the San Gabriel Wash, in vicinity of Rivas, Los Angeles County, Calif. (165084).

BARNES, A. C., Alexandria, Va.: Hall Scott 4-cylinder, water-cooled airplane engine of 1911 (164368).

BARNES, JOHN T., Washington, D. C.: 1 sawfish blade from specimen taken from Maroni River, French Guiana, about 1930 (163583).

BARTLETT, Prof. H. H., Buenos Aires, Argentina: 77 grasses from Argentina (164935, 165239, 165268); (through Mrs. Agnes Chase) 10 grasses from Sumatra (165319). (See also under University of Michigan.)

BARTLETT, Capt. ROBERT A., New York, N. Y.: Collection of invertebrates, etc., from the Arctic (162959).

BARTLEY, FLOYD, Circleville, Ohio: 1 plant from Ohio (164460).

BARTRAM, EDWIN B., Bushkill, Pa.: 12 plants from Colombia (164983, exchange).

BARTSCH, Dr. PAUL, Washington, D. C.: 5 sets of birds' eggs from Iowa, collected by Bohumil Shimeck (164131).

BAUGHMAN, J. L., Houston, Tex.: 286 fishes from Texas and Florida; crustaceans and mollusks (160191).

BAUSCH & LOMB OPTICAL Co., Rochester, N. Y.: A set of 9 corneal contact eyeglasses for addition to the collection of ophthalmic lenses and spectacles (164456)

BEAMER, Prof. R. H., Lawrence, Kans. (See under University of Kansas.)

BEATTIE, R. KENT, Washington, D. C.: 902 plants, mostly from Oregon, Washington, and eastern Asia (163539, 164193).

BEATTY, HARRY A., Christiansted, St. Croix, Virgin Islands: 5 deer collected in July, August, September 1942, on St. Croix (164450); a collection of reptiles and amphibians from St. Thomas, St. John, St. Croix, and Tortola, Virgin Islands (162940).

BEEBE, Dr. WILLIAM, New York, N. Y.: 12 frogs from Caripito, Venezuela, collected in 1942 (164293).

BEHRE, Prof. ELLINOR H., New Orleans, La.: Small collection of marine invertebrates, 9 mollusks, and 2 brittlestars (163756).

BENEDICT, JAMES E., Jr., Washington, D. C.: 8 plants from Maryland (165377, exchange).

BENESH, BERNARD, North Chicago, Ill.: 31 cerambycid beetles (164074).

BENNETT, Dr. A. B., Washington, D. C.: Colt's double-barrel shotgun (164675).

BEQUAERT, Dr. JOSEPH, Boston, Mass.: 2 flies (158143, exchange); 4 Hymenoptera (165277).

BJORKMAN, JOHN J., Los Angeles, Calif.: 1 engraving on celluloid and 1 blueprint from engraving (163784).

BLACKBURNE, WILLIAM H., Washington, D. C.: (Through Dr. Charles G. Abbot) A low-power microscope containing a large green beetle said to have been in the donor's family over 90 years (164882).

BLACKMORE, Mr. and Mrs. JOSEPH, Imlay City, Mich.: Sword and newspaper of Civil War period (164806).

BLAKE, Prof. I. H., Lincoln, Nebr.: 70+ Crustacea from Wyoming (145877).

BLAKE, Dr. S. F. (See under U. S. Department of Agriculture, Bureau of Plant Industry, and L. W. Kephart.)

BLOUNT, Mrs. LUCY JORDAN, Waynesboro, Ga.: (Through Lt. Col. H. Cliff Hatcher) United States flag of period of War of 1812 (163694).

BOEING AIRCRAFT Co., Seattle, Wash.:

1 binder containing 31 war posters (164548).

BOHART, Dr. RICHARD M., Los Angeles, Calif.: 27 bugs, comprising 3 types and 24 paratypes of 16 species (158795, exchange).

BOLES, THOMAS. (See under U. S. Department of the Interior, National Park Service.)

BONHAM, Dr. KELSHAW. (See under Elmer O. Pedersen.)

BOURGEOIS, MARIE, Mixcoac, D. F., Mexico: 2,481 mollusks from Mexico (163817, 164068, 164354, 164923, 165008).

BRADY, KEITH and DIONE, Oak Park, Ill.: 10 hand-made lantern slides, in color (163404).

BRENNER PHOTO Co., Washington, D. C.: 1 No. 4, 4×5 Cartridge Kodak manufactured about 1898; 1 B. & L. Volute shutter; 1 B. & L. Zeiss Anistigmat Lens, series 2A, No. 52691, manufactured about 1900 (163729, 164395).

BREWER, Mrs. GRACE H. (See under Estate of Frank C. Baker.)

BRIDGE, Dr. JOSIAH. (See under U. S. Department of the Interior, Geological Survey.)

BRIDWELL, J. C., Washington, D. C.: 1 greensnake from Vienna, Va. (165404).

BRIGGS MANUFACTURING Co., Detroit, Mich.: 13 war posters in duplicate (164587).

BRIND, W. L. (See under A. J. Deering.)

BRITISH INFORMATION SERVICES, New York, N. Y.: 14 screens of photographs comprising an exhibit entitled "Britain's Weapons of War"; also 6 items of portions of German planes shot down in England (163401, loan); 3 models of landing barges, 1 photo of Winston Churchill (heroic size), 2 life-size figures representing respectively a "commando" and a "paratrooper" with full equipment, and a series of enlarged photos, showing war activities of British men and women for special exhibition during December 1942 (164511, loan).

BROADY, Mrs. F. E., Washington, D. C.: Mandarin robe (163668).

BRONZART METALS Co., New York, N. Y.: 39 aircraft recognition models, friendly and enemy types (164566).

BROOKLYN BOTANIC GARDEN, Brooklyn, N. Y.: 53 ferns from Mauritius (163408, exchange): 4 plants from Ecuador (161986, 164687, exchange).

BROWER, Dr. A. E., Augusta, Maine: 74 moths, representing 48 species, and 1 dipterous larva (164275).

BROWN, FREDERICK W., Washington, D. C.: Silver medal commemorating the completion of the Union Pacific Railroad in 1869 (163872).

BRUES, Prof. C. T., Cambridge, Mass.: 6 beetles, bred from prehistoric corn (probably 2,000 years old) from Peru (163211).

BUCHER, WM. F., Washington, D. C.: 12 specimens of domestic and foreign woods collected by donor (165400).

BUDDHUE, JOHN D., Pasadena, Calif.: A piece of the Monahans, Tex., meteorite (weight, 26 grams) (164260, exchange).

BUREN, WM. F., Clinton, Iowa: 153 ants, representing 21 species, 5 of which are represented by 16 paratypes (164410, exchange).

BURT, Prof. CHARLES E., Winfield, Kans.: A small collection of chiggers from Kansas (163340).

BURTON, CHARLES, Greenbelt, Md.: Earthenware vessels, clay heads, spindlewhorl, etc., collected near the ruins of Calixtlahuaca (Temple of the Wind), near the city of Toluca, State of Mexico, Mexico (163628).

BUSHNELL, Mrs. DAVID I., Washington, D. C.: 2 canoe paddles described as having been made for David I. Bushnell, Jr., in 1895 by Micmac Indians, Bay of Charloa, Nova Scotia, and a toy steamboat of about 1885, (164236).

BUSHONG & Co., Portland, Oreg.: 1 war poster and duplicate (war-production incentive) (164210).

BUTLER, Rear Admiral CHARLES S. Bristol, Tenn.: A sandstone concretion cemented by limonite, from Bristol (165022).

BUTTS, Dr. CHARLES, Washington, D. C.: Approximately 500 Pleistocene mollusks from Golconda, Ill. (164069).

CABALLERO Y C., Prof. EDUARDO, Chapultepec, Mexico: Cotypes of nematode (163112).

CABRERA, Dr. ÁNGEL L. (See under Museo de La Plata.)

CAHN, Dr. A. R. (See under Tennessee Valley Authority.)

CALIFORNIA ACADEMY OF SCIENCES, San Francisco, Calif.: 27 plants (164289, 164434, exchanges); 14 plants from the western United States (164530, 164778, exchanges); (through Dr. Wilbert M. Chapman) 17 fishes, including 6 paratypes (164782, exchange); (through Dr. Robert C. Miller) 4 paratypes of fishes (163641, exchange).

CALIFORNIA DEPARTMENT OF NATURAL RESOURCES, *Division of Fish and Game*, San Francisco, Calif.: (Through

Brian Curtis) 2 parasitic isopods (164154).

CALIFORNIA, UNIVERSITY OF, *Department of Botany*, Berkeley, Calif.: 301 plants (163396, 164542, exchanges).

CALKINS, FRANK C. (See U. S. Department of the Interior, Geological Survey.)

CALVERT DISTILLERS CORPORATION, New York, N. Y.: 9 antiprohibition posters (163797).

CAMERA, THE, Baltimore, Md.: (Through E. V. Wenzell): 1 4×5 Blair Camera Co. camera, patents, 1887–1890; 5 4×5 Plate Holders, patents, 1875, 1883, 1884 (165446).

CAMERA CLUB, THE, New York, N. Y.: 54 pictorial photographs exhibited during December 1942 (164391, loan).

CAMERON, Mrs. FAYE I., Delleker, Calif.: 3 opalized wood specimens from Plumas County, Calif. (163612).

CANADIAN GOVERNMENT, *Department of Agriculture, Entomological Branch*, Ottawa, Canada: (Through Dr. J. McDunnough) 7 moths (164183, exchange); 7 Lepidoptera, representing 4 species, all paratypes (164963, exchange); (through G. Stuart Walley) 4 Hymenoptera (paratypes) (163359); 29 Hymenoptera, including paratypes of 3 species and a male of a species not previously represented in the collections (164364, exchange); 4 Hymenoptera, representing 4 species (164891, exchange).

CANFIELD, Mrs. MARY C., Grayling, Mich.: 1 plant from Michigan (162649).

CANNON, Dr. JOSEPH, Seldovia, Alaska: Japanese brass 20-mm. cartridge case, Chinese bank note, oil portraits of the Emperior Nicholas II and the Empress Alexandra of Russia, and the autograph of Tseo Tsung Chiang (164501).

CAPLAN, ALLAN, New York, N. Y.: A blue topaz pebble from Minas Novas, Minas Geraes, Brazil (163716).

CARBOLOY CO., INC., Detroit, Mich. 3 war posters (164589).

CARCELLES, Dr. ALBERTO, Buenos Aires, Argentina: 265 mollusks (164248, exchange).

CÁRDENAS, Dr. MARTÍN, Cochabamba, Bolivia: 45 plants from Bolivia (163640); 2 beetles from Bolivia (164867). (See also under Universidad Autónoma de Cochabamba.)

CARNEGIE MUSEUM, Pittsburgh, Pa.: 2 beetles (163932, exchange); 1 skeleton of a fossil mammal (165231, exchange); (through M. Graham Netting) 6 frogs from Brazil, collected by John D. Haseman in 1907–9 (163617, exchange); (through Dr. A. Avinoff) 9 Lepidoptera, representing 6 species or subspecies (164726, exchange); 1 lepidopteron, cotype (164847, exchange); 29 bird skins collected by the Holt Expedition (165131).

CAROLINA BIOLOGICAL SUPPLY CO., Elon College, N. C.: (Through Prof. Thomas E. Powell) 3 shipworms (163436).

CAROTHERS, R. S., Selma, Ala.: A pair of beaded deerskin moccasins bought by donor's father in 1891 from the Apache chief Geronimo while he was a prisoner of war at Mount Vernon, Ala.; also a discoidal stone plowed up in a field near Cahaba, Ala. (165033).

CARPIN, Mrs. THEODORE, Washington, D. C. (See under Daughters of Ukraine.)

CARR, Mrs. WILBUR J., Washington, D. C.: 45 coins, 15 medals, 7 medalets, and a "widow's mite" (164481).

CATHOLIC UNIVERSITY OF AMERICA, Washington, D. C.: 33 plants (164540, exchange); 2 plants from Canada (164894, exchange).

CAVENAUGH, Dr. R. LA T. (See under Panama Canal.)

CECIL, EMMA CAROLINE SCHENCK: 139 pieces of "Peachblow" glass made by the New England Glass Co., East Cambridge, Mass., in the 1880's (164184, bequest).

CEOUGH, RICHARD, New York, N. Y.: 2 Chamula costumes from Tenejapa, near San Cristóbal (Las Casas), Chiapas, Mexico (164992).

CERECERO, MARÍA CRISTINA, Chapultepec, Mexico, D. F.: 1 specimen of new species of helminth (164774); cotype of helminth (164968).

CHACE, Dr. FENNER A., Jr., Cambridge, Mass.: 50 amphipods (164397). (See also under Harvard University, Museum of Comparative Zoology.)

CHAMBERLAIN FUND, FRANCES LEA, Smithsonian Institution: 237 operculate land shells (163559); 1 blue topaz from Minas Geraes, Brazil, weighing 54.37 carats (163626); 27 mollusks (164694).

CHAMBLISS, Dr. CHARLES E., Washington, D. C.: Pole of worked pine used by Chippewa Indians to push and guide boat from which "wild rice" is gathered at harvest time, obtained by donor in the vicinity of Mille Lacs, Minn., in 1923 (164190).

CHAPIN, Dr. E. A., Washington, D. C.: 2 Ukrainian decorated Easter eggs (164756); 1 Cuban grassquit (164958).

CHAPMAN, Dr. WILBERT M. (See under California Academy of Sciences.)

CHARLESTON MUSEUM, Charleston, S. C.: (Through G. Robert Lunz, Jr.)

17 fishes from the West Indies, collected by C. J. D. Behrens (165340).

CHASE, Mrs. AGNES, Washington, D. C.: 31 grasses from tropical America (163582); 38 grasses from China, collected by Dr. Yi-li Keng (163719); 49 grasses from the Philippine Islands (163846); 122 grasses from Mongolia (164681); 4 grasses from Southern United States (164705); 10 grasses from Argentina (164893); 61 grasses collected in India by Walter Koelz (165128); 28 grasses from the East Indies (165318); 6 grasses from South America (165334); 50 plants from China and Philippine Islands (165379) 2 grasses from Fiji (165442). (See also under Prof. H. H. Bartlett.)

CHAYES, Dr. FELIX, Washington, D. C.: (See under U. S. Department of the Interior, Bureau of Mines.)

CHITTICK, HOWARD A., McLean, Va.: 1 palm warbler (165271).

CIVILIAN DEFENSE, OFFICE OF, Washington, D. C.: 24 war posters (163564).

CIVIL WORKS ADMINISTRATION, in cooperation with Smithsonian Institution: Bones of 4 species of birds, collected at Buena Vista Lake, Kern County, Calif., in 1933 by Dr. Waldo R. Wedel (162086).

CLAFLIN, C. A., West Medford, Mass.: 1 specimen of helvite from Butte, Mont. (165269).

CLARK, AUSTIN H., Washington, D. C.: 22 butterflies, representing 11 species of Nearctic Rhopalocera, collected May 3, 1942 (163391); 3 crayon lithographs drawn by A. Friedel after daguerreotypes of geological specimens, 6 duplicates, from the estate of Dr. Walter Fewkes (164914); 27 sabellid worms (152943).

CLARK, L. M. (See under Shell Oil Co.)

CLAUSS, EUGENE A., Providence, R. I.: A brochure, "The Library of the Rhode Island School of Design," by Evelyn Chase, and a booklet, "University Hall," both examples of fine printing (164544).

CLEMENTS, J. MORGAN, Demopolis, Ala.: 1 string of turquoise beads, probably Turkestan, purchased in Urga, Mongolia, and several synthetic rubies from the first artificial rubies made by Prof. Henri Moissan (164408).

CLOKEY, IRA W., South Pasadena, Calif.: 14 plants from Nevada (164101).

COLBURN, Dr. WM. E. (See under Cranbrook Institute of Science.)

COLEGIO DE LA SALLE, Cartegena, Colombia: (Through Brother Apolinar A.) 82 plants from Colombia (163908).

COLLIER, ALBERT, Rockport, Tex.: 1 hermit crab, 2 anemones (147157).

COLLOM, Mrs. ROSE E., Payson, Ariz.: 58 plants from Arizona (163419, 163731, 164297).

COMMERCIAL SOLVENTS CORPORATION, Terre Haute, Ind.: 4 samples of recently developed commercial solvents (164732).

COMSTOCK, Dr. JOHN A., Los Angeles, Calif.: 4 Lepidoptera—2 paratypes of each of 2 species (164189).

CONARD, Prof. HENRY S., Grinnell, Iowa: 17 ferns from Java (163398); 43 plants (163922, exchange); 122 plants from Maryland and Virginia (164623, 165444, exchanges).

CONFERENCE ON DISTRICT FLORA, Washington, D. C.: 17 plants from the vicinity of Washington, D. C. (164849).

CONSOLIDATED LITHOGRAPHING CORPORATION, Brooklyn, N. Y.: 2 war posters (163829).

COOK, Prof. ERNEST FULLERTON. (See under U. S. Pharmacopoeial Convention.)

COOK, FANNYE A. (See under Mississippi Game and Fish Commission.)

COOK, Dr. O. F. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

COOKE, Dr. C. WYTHE, Washington, D. C. (See under G. M. Ponton and Prof. Gayle Scott.)

COOLEY, Dr. R. A. (See under Federal Security Agency.)

COOPER, Dr. G. A. (See under Smithsonian Institution, National Museum.)

COPELAND, Dr. STANLEY G., Columbus, Ohio: (Through Robert Goslin): 1 bone of the little brown crane (164682.)

CORNELL UNIVERSITY, Ithaca, N. Y.: (Through V. S. L. Pate) 2 wasps, paratypes (107954, exchange); (through Prof. Robert Matheson): 39 specimens of mosquito material, including 8 adults, 24 larvae, 4 cast larval skins, and 3 cast pupal skins, representing in all 19 species (164305, exchange); (through Dr. Wm. T. M. Forbes) 2 Lepidoptera (164858).

CORNING GLASS WORKS, Corning, N. Y.: 13 specimens of commercial and laboratory glassware, showing examples of 96 percent silica glass, low-actinic red glass, glass for industrial piping, and fritted glass (164966).

CORNMAN, Mrs. L. R., San Diego, Calif.: 42 plants from Panama (163383).

COTA, F. M., San Diego, Calif.: 5 plants from California (163802).

COTTON-TEXTILE INSTITUTE, INC., New York, N. Y.: 25 specimens of cotton fabrics produced by American manufacturers for the spring and summer of 1943 (164777).

COWLES, Prof. HENRY T., Mayagüez, Puerto Rico: Plant from Puerto Rico (164085).

CRANBROOK INSTITUTE OF SCIENCE, Bloomfield Hills, Mich.: (Through Dr. Wm. E. Colburn) Minerals from Michigan and Ohio (165107).

CRAWFORD, Dr. D. L., Washington, D. C.: 3,093 insects (163791).

CRUVER MANUFACTURING Co., Chicago, Ill.: A complete set of 82 scale-model airplanes manufactured for the U. S. Navy to be used in training for recognition, range estimation, and gunnery practice (164978).

CURRAN, Dr. C. H. (See under American Museum of Natural History.)

CURTIS, BRIAN. (See under California Department of Natural Resources.)

CURTISS, ANTHONY, Port-au-Prince, Haiti: 13 jars of reptiles, amphibians, fishes, crustaceans, insects, and mollusks, mostly from Haiti (165073.)

CUTLER, Dr. HUGH C., São Paulo, Brazil: 19 plants from Bolivia (165413).

DAILY, W. A., Indianapolis, Ind.: 45 plants (163783).

DANIEL, Rev. Brother, Medellín, Colombia: 58 plants from Colombia (164900, 164490); 29 mollusks and a small collection of miscellaneous insects from Colombia (164536).

DA ROCHA, Prof. DIAS, Ceara, Brazil: 1 lizard (163760).

DAUGHTERS OF UKRAINE, *Gold Cross Chapter*, Chicago, Ill.: (Through Mrs. Theodore Carpin) 6 Ukrainian Easter eggs (163362).

DAVIS, Prof. RAY J. (See under University of Idaho.)

DAVIS & GECK, INC., Brooklyn, N. Y.: 122 tubes of surgical sutures for use in the suture exhibit (163632).

DEAM, Dr. CHARLES C., Bluffton, Ind.: 16 plants from the United States (165026).

DE CHAMPLAIN, Rev. A. A., Rimouski, Quebec: 8 mollusks from Canada, Algiers, and the Red Sea (164299).

DEERING, A. J., New York, N. Y.: (Through W. L. Brind) Cotype of tropical fish from donor's aquarium; specimen originally collected in Río Magdalena, Colombia (165062).

DEGENER, OTTO, New York, N. Y.: 512 plants from the Hawaiian Islands (164340, 164752, 164860, 164513, 165085).

DEIGNAN, H. G., Washington, D. C.: Specimen of grass from Virginia (165376).

DELANO, Hon. FREDERIC A., Washington, D. C.: Coins and medals and 2 ivory scrimshaw carvings (165206).

DELONG, Prof. D. M., Columbus, Ohio: 30 named bugs, representing 16 species, all paratypes (163826).

DENDY, JACK S. (See under Tennessee Valley Authority.)

DENLEY, C. F., Glenmont, Md.: 1 Mikado pheasant (163598).

DICKINSON, GLADYCE E., Washington, D. C.: 1 woven bag and 1 netted hammock of sisal fiber fashioned by a Maya Indian in Muna, near Merida, Yucatán (163734).

DICKINSON, W. E. (See under Milwaukee Public Museum.)

DIDDELL, Mrs. W. D., Jacksonville, Fla.: 2 plants from Florida (164521, 164971).

DIERS, HERMAN H., Washington, D. C.: Wood engraving of the Smithsonian Institution Building published in 1871 (164117); lithograph by Julian, after Powell, showing De Soto and a youthful companion at the time of the discovery of the Mississippi River (164951); 10 prints relating to the history of the Smithsonian Institution (165185).

DIETRICH, Dr. HENRY, Ithaca, N. Y.: 49 beetles collected in New York State (163487); 1 specimen of blind weevil collected by Dr. Dietrich at Lucedale, Miss. (164676).

DIX, W. L., Morrisville, Pa.: 4 ferns from Wayne County, Pa. (164032).

DOBBIN, CATHERINE N., Northampton, Mass.: 3 amphipods and 11 copepods parasitic on gills of young codfish from Mount Desert Island, Maine (159231).

DOLLEY, JOHN S., Merritt, Wash. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

DOUGHERTY, ELLSWORTH C., Berkeley Calif.: 50+ amphipods from California and Oregon (164084); holotype and allotype of helminth (164255); 50+ isopods and 100+ amphipods (164580); 2 botfly larvae, parasitic on the mountain beaver (164683); 8 parasitic worms (164872).

DOUGLAS AIRCRAFT Co., INC., Santa Monica, Calif.: Wind-tunnel model of the Douglas DC–4, painted with minor alterations for display purposes (148661).

DOW CHEMICAL Co., Midland, Mich.: 5 lengths of Saran plastic pipe with 6 pipefittings, 5 lengths of Saran tubing, and 16 lengths of Ethocel tubing in various colors (165091).

DOWNS, Dr. WILBUR G., Trinidad, B. W. I.: 1 silky anteater (mounted), collected on the Island of Trinidad (164952).

DRAKE, Prof. CARL J., Ames, Iowa: 12 bugs, representing 6 species, 4 of them

by 7 paratypes (163541); 6 bugs collected in the Canal Zone (163812).

DROUET, Dr. FRANCIS, Chicago, Ill.: 16 algae from Plummers Island, Md. (164346).

DRYANDER, Mrs. EDITH, La Blanca, Cali, Colombia: 45 plants from Colombia (163637).

DUCKE, Dr. A., Manáos, Brazil: 9 plants from Brazil (165028, 165147, 164750).

DUGAND G., Dr. A. (See under Instituto de Ciencias Naturales.)

DUKE UNIVERSITY, Durham, N. C.: 10 ferns from Puerto Rico (164733, exchange).

DU PONT, E. I., DE NEMOURS & Co., INC., Wilmington, Del.: 1 specimen of light Cellophane fiber, made by injecting bubbles of air in the fiber as it is formed; 3 specimens of rayon tow for mechanical packing; and 3 special applications of Nylon as household screening, tapered bristles, and a paint brush (165438).

EAKIN, Mrs. M. S., Pittsburgh, Pa.: Wool sampler map of Ireland made during the first quarter of the 19th century in Raphone, northern Ireland, by Catherine Russell, great-great-aunt of Maj. M. S. Eakin (164337).

EASTMAN KODAK Co., Rochester, N. Y.: (Through C. E. K. Mees) A specimen of carrollite from Rhokana, Rhodesia (164464).

EDISON, THOMAS A., INC., West Orange, N. J.: 20 war posters (164547).

EDUCATIONAL ART SERVICE Co., New York, N. Y.: 1 patriotic poster print, set up in Denby type (165088).

EDWARDS, RICHARD A., Gainesville, Fla.: A collection of types of Miocene Ostracoda from the Duplin marl of North Carolina (164819).

EFFERVESCENT PRODUCTS, INC., Elkhart, Ind.: 1 urine-sugar analysis set for addition to the pharmacy collection (163920).

EINSON-FREEMAN Co., Long Island City, N. Y.: 5 war posters after paintings by McClelland Barclay (164186).

ELLIS, T. KENNETH, Hot Springs, Va.: 3 vials of amphipods and 1 pinnotherid crab from South Carolina (152815).

EMERY, Dr. W. O., Washington, D. C.: An iron object resembling a driving point or shoe for a wooden pile recovered from the Rhine River at Cologne about 1902–3 and supposedly a relic of a bridge erected by the Romans there during the second to fourth centuries A. D. (164430).

EMMERSON, MILO ELSON, Washington, D. C.: An early American blown-glass funnel, period of 1770, for addition to the history of pharmacy collection (163659); 3 early American blown-glass medicine bottles (164982).

EMPLOYERS' GROUP, THE, Boston, Mass.: 15 war posters (14 duplicates) (164392).

ENGELHARDT, GEORGE P. (deceased), Scarsdale, N. Y.: 4,300 miscellaneous insects, mostly Lepidoptera, and a small collection of books and papers on entomological matters (bequest, 163515).

ESCUELA SUPERIOR DE AGRICULTURA TROPICAL, Cali, Colombia: (Through Dr. Ángel Ibarra C.) 116 plants from Colombia (163639, exchange); (through Cecil Miles) 61 fishes, mostly from the Río Cauca, Colombia, including 1 paratype from Honda, Río Magdalena (164853).

FABRI, RALPH, New York, N. Y.: 35 etchings, for exhibition during December 1942 (164350, loan).

FAIRBANKS, E. E., College Park, Md.: A collection of dufrenite concretions from the excavations of the Bureau of Standards Radio Station, 2 miles east of Greenbelt, Md. (164436).

FALKEN, AUGUST, Jamaica, L. I., New York: Water-color drawings, about 14" × 22", of the U. S. S. *Boston* and the U. S. S. *Maine*, by Charles E. Oehl (163824).

FARLOW HERBARIUM, Cambridge, Mass.: 32 plants from Fiji (164539, exchange).

FASSETT, Prof. NORMAN C. (See under University of Wisconsin.)

FEDERAL SECURITY AGENCY:

*U. S. Public Health Service*, Rocky Mountain Laboratory, Hamilton, Mont.: (Through Dr. R. A. Cooley) 2 paratype ticks (163781).

*U. S. Public Health Service*, Whitehorse, Yukon: (Through Malcolm Pirnie, Jr.) 11 mosquitoes, representing 3 species, all females, collected in Alaska in 1943 (165365).

FEIS, Mrs. HERBERT, Washington, D. C. (See under Mrs. Joseph Stanley-Brown.)

FENLON, Mrs. EDWARD F., Kansas City, Mo.: Male Indian skull without lower jaw, believed to be that of a Cheyenne chief killed in northwestern Kansas about the time of the construction of the Union Pacific Railroad (163562).

FENNAH, Dr. R. G., St. Augustine, Trinidad, B. W. I.: A small collection of Homoptera, including types of 6 new species (164188).

FERGUSON, Mrs. ALICE L. L., Wash-

ington, D. C.: Skeletal remains from ossuary No. 2 on Mrs. Ferguson's farm near Accokeek, Prince Georges County, Md. (164276); skeletal remains from ossuary No. 4, Ferguson Farm (164913).

FERRIS, Estate of Mrs. ANNETTE R.: (Through Dr. Ernest N. Ryder) Bridal chest of oak bound with iron, 1712 (164197).

FESSENDEN, G. R., Washington, D. C.: 4 plants from Maryland and Oregon (164411).

FIELD, Mrs. BEATRICE, Winchester, Mass.: 37 lead-pencil drawings for special exhibition during October 1942 (163877, loan).

FIELD, W. D., Washington, D. C.: 34 Lepidoptera, including holotype of a new species (163389). (See also under H. A. Freeman.)

FIELD MUSEUM OF NATURAL HISTORY, Chicago, Ill.: 119 plants, mostly lower cryptogams, from Guatemala (164390, 164557, exchanges); 1,279 plants collected in Guatemala by Dr. J. A. Steyermark (164880, exchange); 1 plant (164751, exchange); 101 plants (lower cryptogams) (165300, exchange).

FIGGINS, Dr. J. D. (See under University of Kentucky).

FIRTH-STERLING STEEL CO., McKeesport, Pa.: 6 war posters (164871).

FISHBACK, FORD, Louisville, Ky.: A painted calabash from Santarem, Brazil; woven hammock from Iquitos, Peru; feathered dance headdress of the Canelos Indians living on the Río Bobonaza, Oriente Province, Ecuador; and a stick of tobacco from Sihuinisla, near Andoas, on Río Pastaza, Oriente, Ecuador, collected by donor in February 1931 (164072).

FISHBURNE, B. P., Washington, D. C.: Square with rosettes and leaves embroidered in gold thread in high relief, from Iran or Kashmir (163843)

FISHER, Dr. A. K., Washington, D. C.: Photograph of plant (164658).

FISHER, Dr. WALTER K., Pacific Grove, Calif.: 49+ echiuroids, including 7 types and 1 paratype (165146); 11 photographs of ornithologists (165471). (See also under Hopkins Marine Station.)

FISHERY TECHNOLOGY LABORATORY. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

FLEETWOOD, RAYMOND J. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

FLEMING, GEORGE E., Washington, D. C.: 2 United States swords of about 1850 (163938).

FLORIDA STATE MUSEUM, Gainesville, Fla.: 104 mollusks from Florida (151866); (through Prof. T. Van Hyning) 5 specimens of *Conus* (164686).

FLUKE, Prof. C. L., Madison, Wis.: 2 flies, females (164696).

FORBES, Dr. WM. T. M., Ithaca, N. Y. (See under Cornell University.)

FOSHAG, Dr. W. F., Washington, D. C.: Stone carvings from the State of Guerrero, Mexico (163629). (See also under Smithsonian Institution, U. S. National Museum.)

FOSTER, JOHN G., Walnut Ridge, Ark.: 1 pecan weevil (164218).

FOX, PORTLAND P., Gilbertsville, Ky.: 300 Lower Devonian fossils from western Tennessee (163357); 1 specimen of vivianite and 3 specimens of limonite from the Tennessee River at Kentucky Dam (163488); 1 specimen of stalactitic limonite from Ellington, Mo. (163780); 300 Lower Devonian fossils from West Tennessee (163977); approximately 150 Lower Devonian fossils from northwestern Tennessee (164332).

FRAMBURG, H. A., & Co., Chicago, Ill.: Miniature models of American and German tanks and armored vehicles (28 specimens) (163841).

FRANKLIN, H. H., Syracuse, N. Y.: 4 early die castings and a commercial circular of H. H. Franklin Manufacturing Co., on "finished castings" (163228).

FRAPRIE, FRANK R., Boston, Mass.: 8 pictorial photographs (164134, exchange).

FRASER, Dr. HUGH M., Oakland, Calif.: (Through Dr. Riley D. Moore) A photograph of the 1892 faculty and students of the American School of Osteopathy, Kirksville, Mo., for addition to the osteopathic collection (163635).

FREDERICK, A. C., Albany, N. Y.: 46 Lepidoptera, representing 24 species (163392).

FREELAND, EDWARD D. (See U. S. Department of the Interior, National Park Service.)

FREEMAN, H. A., White Deer, Tex.: (Through W. D. Field) 10 insects, all paratypes, representing 7 species of Lepidoptera (164990); 2 Lepidoptera (165005).

FREY, DAVID G., College Park, Md., (See under U. S. Department of the Interior, Fish and Wildlife Service.)

FRITZSCHE BROTHERS, INC., New York, N. Y.: 1 war gas identification kit consisting of 6 small vials containing 5 samples of liquids closely resembling

in odor the smells of phosgene gas, lewisite gas, chloracetophenone gas, chlorpicrin gas, and mustard gas; also 1 sample of cleaning agent used for removing these odors (164757).

FRIZZELL, Dr. DON L., Guayaquil, Ecuador: (Through Dr. T. W. Vaughan) Topotypes of Foraminifera and typical specimens from another locality, all from northwestern Peru (164980, exchange).

FROESCHNER, R. C., St. Louis, Mo.: 2 insects, type and allotype of a new species (164702).

FROST, C. A., Framingham, Mass.: A small collection of beetles (163300); a small collection of miscellaneous insects (164652).

FULLER & D'ALBERT, INC., Washington, D. C.: 1 lens, No. 7747, Edward Anthony (164203, exchange).

GABRIEL, DONALD, Detroit, Mich.: Calcite specimen from Quincy mine, Hancock, Mich., and fluorite and celestite from Clay Center, Ohio (164331).

GABRIELSON, Dr. IRA N. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

GALLEGO M., Dr. F. LUIS, Medellín, Colombia: A collection of miscellaneous insects from Colombia (162707, 165124).

GALTSOFF, Dr. PAUL. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

GARDNER, Maj. FLETCHER, San Antonio, Tex.: 2 bamboo flutes, 2 jew's-harps, and an inscription on bamboo from the Southern Mangyan with translation and transliteration, also an inscription from the Buhil-Mangyan of Mindoro, P. I. (164633).

GENERAL CABLE CORPORATION, New York, N. Y.: 3 war posters (164976).

GENERAL CERAMICS CO., Keasbey, N. J.: 3 porous tile reaction cells and 2 porous tile separator plates used for certain types of chemical reactions in commercial chemical manufacture (164892).

GENERAL MOTORS CORPORATION:

*Fisher Body Division*, Detroit, Mich.: 1 set of 17 war posters (164393).

*General Motors Truck & Coach Division*, Pontiac, Mich.: 32 war posters (164394).

*Oldsmobile Division*, Lansing, Mich.: 1 set of "Keep 'em Firing" war-production stimulation posters (43) (164371).

GENTNER, L. G., Talent, Oreg.: 3 beetles (163878).

GEORGETOWN UNIVERSITY, Washington, D. C.: (Through Rev. Father Lawrence Gorman) The John W. Langsdale mineral collection (1,500 specimens) from Georgetown University (165344); (through Father A. O'Leary) 140 birds and 7 mammals from various parts of the world (164482).

GERARD, RAOUL, Los Angeles, Calif.: Water-color drawing of a British "Inniskilling" Dragoon of 1742 (163823).

GILMORE, C. W. (See under Smithsonian Institution, National Museum.)

GINSBURG, ISAAC, Washington, D. C. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

GLASS, JEWELL J. (See under U. S. Department of the Interior, Geological Survey.)

GLYCO PRODUCTS CO., INC., Brooklyn, N. Y.: 7 samples of synthetic waxes or waxlike solids used as substitutes for various hard-to-obtain natural waxes; also 3 samples of synthetic oily liquids used as substitutes for glycerine and dibutyl phthalate (164758).

GODDARD, ARCHIBALD N., Detroit, Mich.: 1 polished specimen of thomsonite from Isle Royale, Lake Superior, Mich. (163955).

GOODNIGHT, CLARENCE J., Brooklyn, N. Y.: 4 slides of branchiobdellids, holotypes of 4 new species (163177).

GOODRICH, B. F., Co., Akron, Ohio: Specimens of crude and finished articles of Koroseal and of synthetic rubbers, including Hycar, Ameripol, Neoprene, Norepol, and Thiokol, and 2 flow-chart photo panels illustrating synthesis of rubber and Koroseal with samples of chemicals; also a natural-rubber, wire-tread aircraft tire and a "War" reclaim tire (165216).

GOODWIN, Dr. RICHARD H. (See under University of Rochester.)

GORDON, DONALD P., Beaufort, N. C.: (Through Dr. A. S. Pearse) 5 amphipods, 6 isopods, 3 copepods, and 1 crab larva (163284).

GORDON, I. L. (See under Reading Co.)

GORDON, Lt. WM. M., Corpus Christi, Tex.: 68 dragonflies from Missouri and Tennessee (164812).

GORMAN, Rev. Father LAWRENCE. (See under Georgetown University.)

GOSLIN, ROBERT, Columbus, Ohio: 1 lot of bird bones from Feurt Village site, Ohio (161998). (See also under Dr. Stanley G. Copeland.)

GRASSMAN, PETER, Phoenix, Ariz.: 30 beetles (163233).

GREEK OFFICE OF INFORMATION, Washington, D. C.: 1 war poster, "Greece Fights On," and 1 duplicate (165169).

GREGOR, Dr. D. K., Fulton, Mo.: 41 Devonian mollusks from central Missouri (164107); 85 brachiopods from the Devonian of central Missouri and about 50 crinoids and other invertebrate fossils from the Bainbridge limestone of southeastern Missouri (164721).

GRIM, Dr. RALPH E., Urbana, Ill. (See under Illinois State Geological Survey Division.)

GURNEY, Lt. A. B., Washington, D. C.: A collection of miscellaneous insects, including 1 schmitt box of miscellaneous insects, 1 schmitt box of mosquitoes, 2 schmitt boxes of Orthoptera, 51 slides of fleas, mosquitoes, etc., 26 vials of alcoholic material, fleas, ticks, etc. (165313).

HAAS, MERRILL W., and LOGUE, L. L., Caripito, Venezuela: Holotype and paratypes of a foraminifer from the Upper Miocene of Venezuela (165283).

HAERING, D. W., & Co., INC., Chicago, Ill.: Exhibit case containing 5 specimens of sections of pipe showing corrosion and boiler scale; also 1 specimen each of Tetra-Phosphoglucosate and Chrom-glucosate used in the prevention of corrosion and the formation of boiler scale (164816).

HALL, Mrs. BARBARA (deceased). (See under William Evelyn Jones.)

HAMBURGER, Mrs. M. E., Washington, D. C.: 1 mounted specimen of hawksbill turtle (164592).

HAMILTON, Dr. JAMES, New York, N. Y.: 1 sea snake from near Santa Elena Bay, Ecuador (164447).

HANCOCK, ALLAN, FOUNDATION, Los Angeles, Calif.: (Through G. F. Augustson) 1 slide containing a rare genus of flea (164220).

HANSON, L. TAYLOR. (See under Estate of Charles G. Balmer.)

HAPP, Dr. S. C., Winona, Minn.: 505 Pleistocene land and fresh-water shells from Winona County, Minn. (163627). (See also under U. S. Department of Agriculture, Soil Conservation Service.)

HARPER, Dr. R. M., University, Ala.: 41 plants from Alabama and 53 photographs of Alabama plants (164645).

HARPER, ROBERT B., Baltimore, Md.: (Through W. H. Harper) Uniform coat, trousers, cap, hat, vest, and pair of spurs owned during the Civil War by Col. Robert W. Harper, Confederate States Army (163704).

HARPER, W. H. (See under Robert B. Harper.)

HARRIS, SEYBOLD, POTTER CO., Cleveland, Ohio: 12 war posters and 2 war notices (163958).

HART, H. H., Belle Glade, Fla.: 2 Indian figurines (wood) found at Belle Glade, Palm Beach County, Fla. (164970).

HART, Dr. J. L., Nanaimo, British Columbia: 40 amphipods, 1 cumacean, 2 isopods, 3 shrimps or shrimp larvae (163505).

HARTMAN, Dr. OLGA, Los Angeles, Calif.: 2 mollusks from Beaufort, N. C. (163354.)

HARVARD UNIVERSITY:

*Arnold Arboretum;* Jamaica Plain, Mass.: 2,236 plants (163720, exchange); 2 grasses from Fiji (164262 exchange); 1,167 plants from the Fiji Islands collected by Otto Degener (164654, exchange);

*Gray Herbarium,* Cambridge, Mass.: 84 ferns (164342, 164650, exchanges); 5 photographs of plants from Colombia (163847, exchange); 197 specimens of ferns, mostly from Venezuela (164541, exchange); 1 plant from Texas (165158, exchange); 1,670 plants from various regions (165316, exchange).

*Museum of Comparative Zoology,* Cambridge, Mass.: 1 skull and lower jaws of an extinct horse from Miocene of Florida (163287, exchange); paratype of mollusk from Bahamas (163714); right ramus of fossil horse from Lower Miocene, Hawthorne formation, Thomas Farm, Gilchrist County, Fla. (164399, exchange); 2 cotypes of mollusks (165103); 6 cotypes of fishes collected in Lago do Maximo, Brazil, by Louis Agassiz in 1865 (165121, exchange); (through Dr. Thomas Barbour) 564 fishes from South America collected by Louis Agassiz on the Thayer Expedition (163486); 2 ducks (164251); (through Dr. Fenner A. Chace, Jr.) 2 crustaceans (154703, exchange); 1 crab and 2 aeglas (164235, exchange); (through James L. Peters) 2 black-lored grass warblers (164708, exchange).

HASBROUCK, Dr. E. M., Washington, D. C.: 5 fulvous tree ducks (165272).

HATCHER, Lt. Col. H. CLIFF. (See under Mrs. Lucy Jordan Blount.)

HATCHETT, STEPHEN P., Ann Arbor, Mich.: 928 + isopods (164375, 164693).

HATZES, Mrs. GEORGE A. (See under Elsie Ullrich.)

HAUGHT, OSCAR, Littleton, W. Va.: 2,320 plants from Ecuador and a considerable number of shells (165285); obsidian mirror found in a stream bed at Olmedo, about 20 km. south of Santa Ana, Manabí Province, Ecuador (165314).

HAWKINS, A. C., Winchester, Va.: Collection of miscellaneous minerals

from Virginia, North Carolina, and Georgia (163500).

HAY, W. P., Bradenton, Fla.: 4 moles and 1 rice rat collected by donor at Englewood and Bradenton, Fla. (164449, 164868).

HAYWARD, WYNDHAM, Winter Park, Fla.: 1 plant cultivated in Florida (163669).

D'HEGUERT, Dr. J. SAER, Valencia, Venezuela: 35 plants from Venezuela (165180).

HENDLEY, FLORA L., Washington, D. C.: Collection of 14 shawls, laces, and other objects of period art (165474).

HENNESSEY, LEROY, Longwood, Fla.: Specimen of the woody stem of the common rosemallow (165233).

HERMANN, Dr. F. J., Greenbelt, Md.: 5 United States plants (164921).

HESS, FRANK L., College Park, Md.: 1 specimen of allanite from Sandy Mush Creek, Buncombe County, N. C. (163937); 6 concretions from Bureau of Standards Radio Station 2 miles east of Greenbelt, Md. (164274).

HESTER, J. PINCKNEY, Phoenix, Ariz.: 11 plants from the western United States (163343, 163732, 163911).

HEWATT, Prof. WILLIS G., Fort Worth, Tex.: 25+ amphipods and 28 isopods from Texas (159187); 21 crustaceans from Texas (160080).

HEYE, PAUL. (See under U. S. Department of the Interior, Fish and Wildlife, Service.)

HIBBARD, RAYMOND R., Buffalo, N. Y.: 150 Middle Devonian corals from western New York (164811).

HILDEBRAND, Dr. S. F. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

HILL, A. T., Lincoln, Nebr.: 4 Pawnee skulls, 2 without lower jaws, each from a different site in Nebraska (161390).

HINCKEL, CHARLES A., Managua, Nicaragua: 19 frogs from Managua (163792).

HOBBS, Dr. HORTON H., Jr., Gainesville, Fla.: A collection of crayfishes, comprising 13 types, 13 allotypes, and 13 paratypes of new species described in Dr. Hobbs's "Crayfishes of Florida" (164155).

HOFF, Dr. C. CLAYTON, Quincy, Ill.: 4 slides of a new species of ostracod representing holotype, allotype, and 2 paratypes (163912); 2 slides, holotype and allotype, of a new species of ostracod (164851); 10 slides of ostracods including holotype, allotype, and paratypes of 2 new species (165081).

HOGAN, JOHN R., Ardmore, Pa.: 60 pictorial photographs for exhibition during November 1942 (164058, loan); 6 pictorial photographs (164487).

HOLDEN, Mrs. RAYMOND T., Washington, D. C.: 4 terra-cotta pitchers, 1 bronze vase, and 1 bronze pedestal lamp excavated at Pompeii and presumably made by Greek colonists in Apulia, southern Italy, during the 4th century, collected by Capt. Lewis Herndon, U. S. N. (163674).

HOLDEN, Prof. ROY J., Blacksburg, Va.: (Through W. J. Stephenson): 6 specimens of cave limesand concretions from New River Cave, Montgomery County, Va. (163976).

HOLDRIDGE, LESLIE R., Port-au-Prince, Haiti: 401 Haitian plants (163691, 163968, 164247); 135 plants from Ecuador (165332, 165391).

HONESS, Dr. RALPH F., Laramie, Wyo.: 2 lungworms (163452).

HOPKINS MARINE STATION, Pacific Grove, Calif.: (Through Dr. Walter K. Fisher) 12 lots of hydrocorals and about 15 specimens of *Peripatus* (165335).

HORTON, F. W., Washington, D. C.: 2 scheelite ores from mines near Lucin, Utah, and Tucson, Ariz., 1 scheelite with pyrrhotite from Johansen mine, and 1 molybdenite ore from Pine Creek mine, Bishop, Calif. (164478); a collection of ores from various localities (23 specimens) (165229, exchange); a collection (66 specimens) largely of tungsten and aluminum ores from various localities (165470, exchange).

HOSAKA, EDWARD Y., Honolulu, Hawaii: 3 grasses from the Hawaiian Islands (164344).

HOTCHKISS, NEIL, Washington, D. C. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

HOTKA, RAYMOND, Iowa City, Iowa: 2 beetles taken from bird stomachs (163322).

HOWELL, Prof. A. BRAZIER, Baltimore, Md.: 32 small mammals, collected in California, Canal Zone, and Germany (165371).

HRDLIČKA, Dr. ALEŠ, Washington, D. C.: 11 casts of Ancient Man and fossil apes obtained from various sources over a period of years and used for exhibit and study purposes (163546); a modern copy of Japanese print by Kiyonaga (163787); chipped blade found at an old village site at Point Hope, Alaska (164048); 3 Russian war posters (164567); 40 Russian anti-Nazi cartoons, 1 duplicate, 1 title page, all reproductions in offset lithography (164985). (See also under Col. Kermit Roosevelt.)

HUBBS, Prof. C. L. (See under University of Michigan, Museum of Zoology.)

HUBRICHT, LESLIE, St. Louis, Mo.: 30+ fresh-water amphipods from the United States, including cotypes of 3 new species (163472).

HUFFMAN, EARL C., Pasadena, Calif.: 183 mollusks from Mexico (165031).

HUGHES, Prof. R. CHESTER, Stillwater, Okla.: 8 slides bearing cotype specimens of parasitic worms (163432); 39 slides of helminths, representing 4 new species (164728).

HUHLEIN, Mrs. C. F., Louisville, Ky.: A wooden bitters cup, 4 miscellaneous pieces of glass, a child's porcelain tea set consisting of 20 pieces, a Meissen and a Cauldon ware cup and saucer (163850).

HULL, DENISON B., Chicago, Ill.: 1 Otarion hearing set (163660).

HUMES, Ensign ARTHUR G. (See under Dr. A. J. Tacquin.)

HUMPHRIES, Mrs. MAUREEN C., Victoria, British Columbia: Specimen of cattail down for upholstery purposes (163909).

HUNGERFORD, Prof. H. B. (See under University of Kansas.)

HURD, PETER, New York, N. Y.: 18 lithographs for special exhibition during February 1943 (164753, loan).

HUTCHINSON, ROBERT E., New York, N. Y.: 1 calendar printed by offset lithography containing 13 reproductions of historical prints of Washington, D. C. (164006).

HYMAN, Dr. LIBBIE H., New York, N. Y.: 1 slide of flatworm (165042).

IBARRA C., Dr. ÁNGEL, Cali, Colombia. (See under Escuela Superior de Agricultura Tropical.)

IDAHO, UNIVERSITY OF, *Southern Branch*, Pocatello, Idaho: (Through Prof. Ray J. Davis) Plant from Idaho (164033, exchange).

ILLINOIS STATE GEOLOGICAL SURVEY DIVISION, Urbana, Ill.: (Through Dr. Ralph E. Grim) 1 sample of halloysite from Eureka district, Utah (164537); 1 specimen of illite from Goose Lake area, Grundy County, Ill. (164832).

ILLINOIS STATE NATURAL HISTORY SURVEY DIVISION, Urbana, Ill.: (Through Dr. H. H. Ross) 219 specimens of mosquito larvae representing 18 species, all named (165312, exchange).

ILLINOIS, UNIVERSITY OF, Urbana, Ill. (Through Dr. George Neville Jones) 257 plants from Illinois (164607, exchange).

INGRAM, W. FRANK, Atlanta, Ga.: 1 star sapphire (316.85 carats), "Star of Artaban" (165469).

INSTITUTO DE CIENCIAS NATURALES, Bogotá, Colombia: (Through Dr. A. Dugand G.) 2,353 plants from Colombia (163395, 163430, 164099, 164211, 164345, 164749, 164762, 165080, exchanges); (through Francisco J. Otoya) 3 beetles collected in Colombia (164075).

INTERIOR, U. S. DEPARTMENT OF THE:

*Bureau of Mines*, Washington, D. C.: (Through Dr. Felix Chayes) 1 specimen of vanthoffite from Imperial County, northeast of Salton Sea, Calif. (164820).

*Fish and Wildlife Service*, Chicago, Ill.: (Through Paul E. Heye and Douglas E. Wade): 42 specimens of coyotes and dogs collected in Missouri (165202); 1 skeleton of the band-tailed pigeon and 1 syrinx of the Richardson's grouse (163795); 1,219 mammals transferred by the Fish and Wildlife Service and entered in the Museum catalog, Nos. 272343–273561, inclusive, between July 1, 1942, and June 15, 1943, not otherwise accessioned (165472); 7 amphibians and reptiles from Bogalusa, La., collected by J. C. Pearson on October 23, 1934 (165419); 27 sets of eggs of birds from Alaska (164130); 3 snakes from Florida (164660); 1 snowy owl, mounted (164118); 63 bird skins collected by Harry Malleis in Guatemala (163711); 29 lots of corals containing types of 6 species (163608); 1 Pacific loon (163597); 47 fishes, including 3 holotypes and 44 paratypes from various localities (163414); 2 skeletons of the scaled quail (163360); 334 plants (158775); (through O. Lloyd Meehean) 10+ amphipods, 65 crayfishes, 1 leech (155844); (through Isaac Ginsburg) 2 fishes, paratypes, from the Gulf of California (162975); (through Milton J. Lindner) a large collection of miscellaneous invertebrates, fishes, mollusks, echinoderms, and algae from the Gulf of Mexico (163260); (through John S. Dolley) 8 miscellaneous insects (163513); (through Dr. S. F. Hildebrand and Dr. Ira N. Gabrielson) 50,000 fishes from various localities (163614); (through Dr. Paul R. Needham) 30+ amphipods (163856); (through Dr. S. F. Hildebrand) 5 parasitic isopods from fishes (163803); (through Raymond J. Fleetwood) 1 pine mouse collected at the Piedmont National Wildlife Refuge, Round Oak, Ga. (163905); (through Fishery Technology Laboratory, Seattle, Wash.) a collection of

marine invertebrates and mollusks from the Alaska king-crab investigation (163923); (through Dr. Paul Galtsoff) 6 mollusks from San José, Guatemala (164070); (through Raymond J. Fleetwood) 1 shrew collected on the Piedmont National Wildlife Refuge, Round Oak, Ga., October 22, 1942, and 1 shrew collected at Round Oak, Ga., March 1943 (164079, 164974); (through Dr. Victor B. Scheffer) 10 pinniped and 8 porpoise skulls, collected by Dr. Scheffer and others (164834); (through Dr. John W. Aldrich) 6 Mexican hummingbirds (164875); (through David G. Frey) about 190 mollusks taken from the oyster bars of the Potomac River (164920); (through Neil Hotchkiss) 15 plants (165317).

*Geological Survey:* 1 small lot of extinct bird bones from the shoulder of Kaumaikehu above Pahala, Hawaii (92898); (through Jewell J. Glass) 1 specimen of the tin ore cassiterite, from Cima, San Bernardino County, Calif. (164328); (through Dr. W. T. Schaller) 22 described mineral specimens from various localities (163646); (through Dr. T. B. Nolan) a specimen of tungsten ore from Tungstonia, White Pine, Nev., Vein No. 1, stope above lower adit: Mine of the Tungsten Metals, Inc. (164988); (through Dr. J. Bridge) 35 specimens of bauxite from 7 localities in Mississippi (163347); approximately 230 Pleistocene fossil mollusks from near Winston, N. Mex., collected by Mr. Jahns and Frank Rutledge (164674); 3 fossil marine mollusks dredged in the Vieques Passage, Puerto Rico, collected by Eugene Callaghan (163579); (through W. B. Lang) 1 specimen of bauxite from Washington mine near Irwinton, Wilkinson County, Ga. (163807); (through F. C. Calkins) a collection (307 specimens) of rocks and minerals from Cottonwood-American Fork area, Utah, described by F. C. Calkins and B. S. Butler (Geol. Surv. Prof. Paper 201) (164356); 1 specimen of tungsten ore from Gilmore Dome, 14 miles northeast of Fairbanks, Alaska, collected by Dr. J. B. Mertie, Jr. (164480).

*National Park Service:* (Through Thomas Boles) 1 fly and 1 shrew (164604); (through Edmund B. Rogers) 250 plants from Yellowstone National Park (164031); reconstructed pottery vessels and representative potsherds from Ocmulgee Basin, near Macon, Bibb County, Ga. (Smithsonian Institution share of material recovered since December 1933 through excavations sponsored by the Smithsonian Institution, the Society for Georgia Archeology, and the National Park Service and financed by CWA and WPA) (162907); 8 plants from Shenandoah National Park (165213); (through Edward D. Freeland) 15 plants from Shenandoah National Park (165374).

*U. S. Antarctic Service:* A collection of Antarctica rock specimens from southern Edsel Ford Range, Marie Byrd Land (164221).

IOWA, STATE UNIVERSITY OF, Iowa City, Iowa: 24 plants (164943, exchange).

IRVING, F. N., Washington, D. C.: 1 fern from Washington, D. C. (164365); 3 ferns from Florida and Georgia (165052).

ISRAEL, S. L., New York, N. Y.: 12 18th- and 19th-century Spanish, French, and Chinese antique, handpainted, and lithographed paper and silk fans with staves of mother-of-pearl and ivory (158095).

JAHNS, R. H., Winston, N. Mex.: 1 specimen of microlite from Harding mine, Embudo, N. Mex. (164719).

JAMES, MAURICE T., Fort Collins, Colo.: 28 flies representing 9 species, 2 of them by 8 paratypes (163813); 6 flies representing 5 species, 4 of them by 5 paratypes (163957).

JARDÍN BOTÁNICO, Asunción, Paraguay: 70 grasses from Paraguay (163479).

JARDIN BOTANIQUE PRINCIPAL, Leningrad, U. S. S. R.: 76 plants (tropical American ferns) (113781, exchange).

JAUME, MIGUEL L., Habana, Cuba: 5 paratypes of mollusks from Cuba, 2 species (164146).

JELLISON, Maj. WM. L., Washington, D. C.: 350 miscellaneous insects collected by the donor in southern Yunnan at Yun Hsien, China (165304).

JENNINGS, CEDRIC C. (See under Rhode Island Department of Agriculture, Office of Entomology and Plant Industry.)

JERRO BROS., New York, N. Y. (Through William Skinner & Sons): 1 pair of slippers with uppers and decorations made from Skinner's satin (163631).

JOHNS-MANVILLE, Manville, N. J.: 3 samples of diatomaceous powders for use as filtering agents (164761).

JOHNSTON, FRANCIS N., Chevy Chase, Md.: About 2,000 specimens of Triassic fossils from New Pass Mountains, Lander County, Nev. (164129).

JOHNSTON, MARY E., Lisbon, Ohio: An all-white, homespun, cotton counterpane embroidered in "Tree of Life" grape-and-flower designs, dated May 8, 1822, and made on a plantation near Murfreesboro, Tenn., by Hetty Bradley, daughter of Maj. John Bradley of Revolutionary fame (163462).

JONES, ARTHUR W., University, Va.: Type of a tapeworm (165133); type of a cestode (165282).

JONES, Dr. GEORGE NEVILLE. (See under University of Illinois.)

JONES, S. E., Winter Haven, Tex.: 1 bat collected at Winter Haven (163654).

JONES, WILLIAM EVELYN (deceased): (Through Mrs. Barbara Hall) 2 porcelain vases and 2 porcelain plates from Capo di Monte molds, made at the Florence, Italy, factory of Marquis Ginori after 1821 (164704).

JOYNER, CALVIN, Washington, D. C.: 2 specimens of jade from Burma; 1 specimen of serpentine, Yunnan Province, China; 1 lot of water-worn pebbles of jade and 1 lot of hand-polished pebbles of jade from Hsinkiang Province (Chinese Turkestan), China (165230).

JUSTICE, U. S. DEPARTMENT OF, *Federal Bureau of Investigation:* Complete skeleton of a young adult male, probably of the White race, found near Bismarck, N. Dak. (165338).

KANSAS, UNIVERSITY OF, Lawrence, Kans.: 2 insect paratypes (164651); (through Prof. H. B. Hungerford) 16 insects, representing 6 species, all paratypes (163995, exchange); (through Prof. R. H. Beamer) 2 insect paratypes (164651).

KARST, ESTHER, Debruce, N. Y.: 1 transfer print on glass of a portrait of Maj. Gen. Zachary Taylor (163662).

KEARNEY, Dr. T. H. (See under U. S. Department of Agriculture, Bureau of Plant Industry, and Dr. D. T. MacDougal.)

KEEN, Mrs. HERBERT B., New York City, N. Y.: Colored lithograph entitled "America's First Shot: The Sinking of the Submarine by the S. S. *Mongolia*, April 19, 1917," from the painting by A. F. Bishop (165345).

KEEN, Dr. MYRA, Stanford University, Calif.: 8 specimens of the pinnotherid crab from Monterey formation, Monterey, Calif. (164950).

KEEVER, CATHERINE, Stony Point, N. C.: 1 plant from North Carolina (163591).

KEITH, ARTHUR, Washington, D. C.: Collection of Paleozoic invertebrate fossils from Mount Guyot quadrangle, Va. (163870).

KELLY, Dr. W. A., East Lansing, Mich.: 89 Devonian fossils from Michigan (163358, 164327, 164720.)

KENT, HOBART, Geneva, N. Y.: 35 wood and linoleum cuts for special exhibition during November 1942 (164108, loan).

KENTUCKY, UNIVERSITY OF, Lexington, Ky.: (Through Dr. Paul O. Ritcher) 11 reared beetle larvae and 1 beetle (163469, 164295); 100 plants from Kentucky (164343, exchange); (through Dr. J. D. Figgins) 10 robins, 1 Savannah sparrow, and 11 grackles (162888, 164080, 165047, 165174); (through Prof. Frank T. McFarland) 300 plants from Kentucky (165145, exchange).

KEPHART, L. W., Takoma Park, Md.: 1 plant from Maryland (165401); (through Dr. S. F. Blake) 1 plant from Maryland (163516).

KERKAM, Maj. WILLIAM B., Jr., Westmoreland Hills, Md.: Gas-actuated machine rifle (164628).

KESSLER, F. C., Canon City, Colo.: 1 specimen of concretionary form of sandstone from the Dakota sandstone at Chandler, Colo. (164594).

KIDDE, WALTER, & Co., New York, N. Y.: 14 war posters (production incentives) (164560).

KIENER, Dr. WALTER, Lincoln, Nebr.: 140 plants from the western United States (163638).

KILLIP, E. P., Washington, D. C.: 515 plants from Colorado and California (163444). (See also under Smithsonian Institution, National Museum.)

KINDLE, Dr. CECIL H., New York, N. Y.: 25 Cambrian fossils from the Corner-of-the-Beach formation, Gaspé (164200).

KING, Lt. Col. W. V., Fort McPherson, Ga.: 41 mosquitoes (164102, exchange); 1 slide of the genitalia of a male *Culex atratus* (mosquito) from Boca Chica Key, Fla., the first record of the species from continental North America (164438).

KINZLEY, JUDD K., Wyckoff, N. J.: 2 beetles (161742).

KLEEREKOPER, HERMAN, Porto Alegre, Brazil: 4 aegias, 3 crabs, 1 crayfish from Brazil (163373).

KLEIN, Dr. ROBERT L. (See under Stevens Institute of Technology.)

KNOWLTON, Dr. GEORGE F. (See under Utah State Agricultural College.)

KOCH, WALTER H., Salt Lake City, Utah: 1 specimen of crystallized epidote from Calumet mine, Salida, Colo. (164634, exchange); 1 specimen each of orpiment and realgar from Getchall mine near Golconda, Nev. (165368, exchange)

KOMP, Lt. Col. W. H. W., Ancon, Canal Zone: 6 specimens and 3 associated slides of mosquitoes (164234).

KOPEC, M. F., Grottoes, Va.: 1 parastitic worm (163420).

KOTO, Miss A. S., Beloit, Wis.: 24 mollusks from the Tortugas (164747).

KROGER GROCERY & BAKING Co. Cincinnati, Ohio: 4 war posters produced as a contribution to the war effort (164204).

KRUKOFF, B. A., New York, N. Y.: 7 wood samples (165144, exchange).

KRULL, Dr. WENDELL H. (See under U. S. Department of Agriculture, Bureau of Animal Industry.)

KUENZEL, JOHN G., Washington, D. C. (See under Navy Department, Bureau of Ships.)

KUNZEL, Rev. A. R., Benque Viejo, British Honduras: A small collection of insects and insect eggs from British Honduras (163735).

LADD, Dr. HARRY S. (See under Frank B. Lamb.)

LAKELA, Dr. OLGA, Duluth, Minn.: 2 plants (163982).

LAKESIDE PRESS, Chicago, Ill.: 1 reproduction in "Deeptone" of a letter written by Abraham Lincoln (164967); 1 example of "Deeptone" printing, a reproduction of a Currier & Ives lithograph, "Home to Thanksgiving" (165194).

LAMB, FRANK B., Chamberlain, S. Dak.: (Through Dr. Harry S. Ladd) Anterior half of fossil fish from Upper Cretaceous Pierre shale, South Dakota (164097).

LANE, M. C. (See under U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.)

LANG, W. B. (See under U. S. Department of the Interior, Geological Survey.)

LANGFORD, DANIEL B., Honolulu, T. H.: 3 mollusks from near Palona Beach, Lourenco Marques, Mozambique (163821).

LARIVERS, Dr. IRA, Reno, Nev.: 1 beetle (164821).

LAUER, JULIUS, Baltimore, Md.: (Through War Department, U. S. Engineer Office): 5 German war medals of the period of World War I (164590).

LAURENCE, ROBERT A. (See under Tennessee Valley Authority.)

LAURENT, Mrs. SUZANNE, Washington, D. C.: 3 birds, including 2 zebra waxbills new to the collections (163718, 165143).

LAUSANNE, UNIVERSITY OF, Lausanne, Switzerland: 59 plants, duplicates and fragments (140767, exchange).

LAWS, B. W., Washington, D. C.: White steam automobile engine from car of 1910, model 00, rated 20 hp. (164014).

LAYTON, FLORENCE W., Washington, D. C.: Small canvas sampler embroidered in 1848 as a stint in needlework by the donor's mother, Julia Winona (Lacey) Layton (1840–1874), while attending St. Vincent's School at Washington, D. C. (164049).

LEECH, HUGH B., Vernon, British Columbia: 7 beetles, all paratypes (163862).

LEGG, W. C., Mount Lookout, W. Va.: Fern from West Virginia (165235).

LEIM, Dr. A. H., St. Andrews, New Brunswick: 5 amphipods from Somer's Brook, Moncton, New Brunswick, and Pugg Lake, Nova Scotia (159541); 3 isopods (165089).

LEON, Brother, Vedado-Habana, Cuba: 15 ferns from Cuba (163485).

LEONARD, E. C., Washington, D. C.: 298 plants mostly from Maryland (165320).

LEWIS, C. BERNARD, Kingston, Jamaica, B. W. I.: A collection of miscellaneous insects and 4 isopods collected on the Pedro and Morant Cays by the donor (165211).

LEYVA, CARLOS J., Oaxaca, Mexico: 2 plants from Mexico (164008, 165036).

LIBERTY MUTUAL INSURANCE Co., Boston, Mass.: 1 war poster (164545).

LINCICOME, Prof. DAVID RICHARD, Lexington, Ky.: 2 slides of parasitic worms, paratypes (163356).

LINDNER, MILTON J., New Orleans, La. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

LINNEAN SOCIETY OF LONDON, London, England: (Through Dr. E. D. Merrill) 46 photographs of specimens in the Linnean Herbarium (164608).

LIPOVSKY, LOUIS J., Barberton, Ohio: 28 flies, 2 pinned adults, 2 slides with 2 and 14 larvae, respectively, 1 vial (alcohol with 10 larvae) and 8 photographs of larvae (164233).

LISSIM, SIMON, New York, N. Y.: 1 color print of a patriotic subject demonstrating the combination of six stencil printings and one offset lithographic printing; this print served as frontispiece to Mr. Lissim's catalog in his special exhibition of paintings and designs (164823).

LITTLE, Dr. ELBERT L. (See under U. S. Department of Agriculture, Forest Service.)

LITTLEHALES, BATES, Washington, D. C.: 40+ amphipods from Frenchman Bay, Maine (163688).

LOGUE, L. L. (See under Merrill W. Haas.)

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, London, England: (Through Dr. W. B. Wigglesworth) 44 mosquitoes, representing 11 species by larvae and adults (165346).

LOOMIS, H. F., Coconut Grove, Fla.: 1 type of milliped collected by Cook and Loomis in Kuling, Kiangsi, China, October 17, 1919 (164432). (See also under U. S. Department of Agriculture, Bureau of Plant Industry.)

LORD, Mrs. WILLIAM H., Asheville, N. C.: 16 negatives of Plains Indians made in 1900 by William H. Lord on the Crow Reservation, southern Montana (163987); beaded shoulder bag from the Chippewa Indians of northern Wisconsin (164095).

LOS ANGELES MUSEUM OF HISTORY, SCIENCE, AND ART, Los Angeles, Calif: Plaster duplicate of fossil horse skull (164510).

LOUISIANA STATE DEPARTMENT OF CONSERVATION, New Orleans, La.: 4 parasitic beetles taken from beaver in Louisiana (164263).

LOVE, Maj. HENRY K., Kensington, Md.: Shrunken human adult head purchased by donor in Quito, Ecuador, in 1931 or 1932 (163470).

LOVERING, Dr. T. S., Kremling, Colo.: 2 sphalerite specimens from Big Four mine near Kremling (164367).

LUNDELL, Dr. C. L., Ann Arbor, Mich. (See under University of Michigan.)

LUNSFORD, JOHN E., Atlanta, Ga.: 1 5×7 color plate of William Jennings Bryan's home at Coconut Grove, Fla., in the fall of 1925 (163406).

LUNZ, G. ROBERT, Jr., Charleston, S. C.: 4 lots of amphipods, 1 shrimp, 1 lot of pycnogonids (144312). (See also under Charleston Museum.)

MACARTHUR, Mrs. W. E., Jacksonville, Fla.: 2 plants from Florida (163331, 164559).

MACDOUGAL, Dr. D. T., Carmel, Calif.: (Through Dr. T. H. Kearney) 2 plants from Arizona (164512).

MACFADDEN, Mrs. FAY A., Boise, Idaho: 31 plants from Idaho (164157).

MACGINITIE, Prof. G. E., Corona Del Mar, Calif.: A collection of Crustacea (about 170 specimens) from the west coast of America (163372).

MAHIN, CHARLES, Pacific Grove, Calif.: 7 European mollusks from California (165343).

MARBLE, Dr. JOHN PUTNAM, Chevy Chase, Md.: 1 specimen of thortveitite from a dyke on the Eptevann farm, Iveland District, Norway (164386); 3 allanite specimens from Essex County, N. Y., and Quebec, Canada (165041).

MARSHALL, ERNEST B., Washington, D. C.: 8 mammal skulls, including 5 gray fox, 1 opossum, 1 muskrat, and 1 weasel, collected near Laurel, Md. (163842); 4 opossums, 2 muskrats, and 1 skunk, collected by donor at Laurel, Md., in December 1942 and January 1943 (164876).

MARTIN, JOEL, Delray Beach, Fla.: 13+ hippas and 3 amphipods from Delray Beach (163459, 163645).

MARTIN, TERRY, Staten Island, N. Y.: 2 carved and painted medicineman canes recently collected by donor's father from the San Blas Indians, southeastern Panama (165348).

MARTÍNEZ, Dr. MAXIMINO, Mexico, D. F.: 4 plants from Mexico (163172, 163407).

MARYLAND ACADEMY OF SCIENCES, Baltimore, Md.: 1 plant from Maryland (165375).

MASTER, LEO A., Washington, D. C.: A 200-watt electric lamp, about 1907, marked "Edison Mazda a 8 175 206," 9½" long, 5" in diameter, brass base (163723).

MATHESON, Prof. ROBERT. (See under Cornell University.)

MATTHEWS, RANSOM, Los Angeles, Calif.: 11 pieces of historical motion-picture film from Earl Thiesen collection (163405); a piece of rubber-tire filler made by the National Rubber Tire Filler Co. about 1920 (163437).

MATUDA, E., Chiapas, Mexico: 71 plants from Mexico (165445).

MAWHINNEY, ARTHUR S., New York, N. Y.: 8 dog portraits of celebrated breeds (163788).

MAXWELL, Mrs. MARIE B., Exeter, N. H.: A catlinite calumet pipe from the Blackfeet, presented in the name of the donor's husband, Clifford D. Maxwell, and originally presented in 1893 to Charles A. Maxwell, his father (165046).

MAXWELL, MARY E., Washington, D. C.: 9 pieces of antique jewelry and 8 commemorative medals collected by donor in the course of her travels (165333).

MCATEE, W. L., Chicago, Ill.: 7 flies, representing 6 species, all types (163899).

MCBEY, JAMES, New York, N. Y.: 35 etchings for special exhibition during April 1943 (165053, loan).

MCBRIDE, H. A., Washington, D. C.: 2 fishes from Liberia, collected by donor (163017).

MCBURNEY, JOHN W. (See under Joseph Ulmer.)

MCCLAIN, J. A., Jr., St. Louis, Mo.: A small collection of beetle larvae col-

lected in St. Louis, Mo., from fence made of timber from Michigan (163763).

McCLAMMY, W. C., Wilmington, N. C.: Irish one-penny token struck in 1820 (163886).

McCLURE, Dr. F. A., Chevy Chase, Md.: Specimens of the woody vine Lak Tong, from Kwangtung Province, China (165247).

McDANIEL, STEPHEN B., Baltimore, Md.: A Staffordshire stoneware plate with paneled painting of the burning of the New York Stock Exchange in 1835 (163919).

McDUNNOUGH, Dr. J., Ottawa, Canada. (See under Canadian Government, Department of Agriculture.)

McFADDEN, Mrs. E. G., Alexandria, Va.: Bordered, cotton applique quilt with an original, all-over, naturalistic pattern of applied flower, bird, butterfly, and vase motifs, cut from large-patterned, polychrome-printed chintz, made during the early 1800's at Charleston, S. C., by Susan Ladson McPherson, great-grandmother of the donor (165195).

McFARLAND, Prof. FRANK T., Lexington, Ky. (See under University of Kentucky.)

McGREGOR, E. A., Whittier, Calif.: 1 type slide of a new spider mite (165083).

McINTOSH, WILLIAM B. (See under G. M. Badger, Jr.)

McKIM, Mrs. W. DUNCAN, Washington, D. C.: 28 specimens consisting of decorated porcelain bearing the mark of Thieme, Dresden, Germany; a French bagpipe, miniature figurines, and baskets from Mexico; an ancient Chinese bronze mirror; a Japanese sword guard; and miscellaneous items of Swedish folk art (164201).

McLEAN, Mrs. MARION J., Washington, D. C.: An old linen sampler with alphabets, verses, flower designs, and vine and saw-tooth borders, worked in eyelet, chain, satin, and cross-stitch embroidery by Nancy Batchelder, aged 12 (164484).

McPHERSON, H. R., Columbus, Ohio: 1 bone (pelvis) of the little brown crane (165025).

McVAUGH, Dr. ROGERS. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

MEAD, Hon. JAMES M., Washington, D. C. (See under Mrs. Helen Slater Ramsay.)

MEDLAR, W. P. (See under Natural History Museum, San Diego, Calif.)

MEEHEAN, O. LLOYD, Welaka, Fla. (See under U. S. Department of the Interior. Fish and Wildlife Service.)

MEES, C. E. K., Rochester, N. Y. (See under Eastman Kodak Co.)

MENGES, C. (See under Clarence H. Alexander.)

MERCK & Co., INC., Rahway, N. J.: An exhibit of the original American synthesis of Vitamin $B_1$ (according to Williams, Buchman, and Cline) illustrating chemical transitional steps from molecule to molecule by means of atom models (163634).

MERRILL, Dr. E. D., Cambridge, Mass. (See under Linnean Society of London.)

METROPOLITAN CAMERA CLUB COUNCIL, Long Island, N. Y.: 100 pictorial photographs, 7th annual travel salon exhibited January 1943 (164568, loan).

METROPOLITAN LIFE INSURANCE CO., New York, N. Y.: 19 health placards illustrating dangerous diseases and vital statistics, for addition to the section of public health (164050); 9 war posters (National Nutrition Campaign) (164546).

MEYER, Dr. MARVIN C., New Brunswick, N. J.: A collection of leeches (163865, deposit).

MICHIGAN, UNIVERSITY OF, Ann Arbor, Mich.: 139 plants from British Honduras (157551, 164779, exchanges); 711 plants (161398, 164656, exchanges); 577 plants from Mexico (163455, 164850, exchanges); 31 plants from Texas (164215, 164241, exchanges); (through Dr. C. L. Lundell) 421 plants from Texas (164680, exchange); (through Prof. H. H. Bartlett) 223 plants from Haiti (163670, exchange);

*Museum of Paleontology:* Model restorations of 2 fossil reptiles (163884, exchange); a collection of topotypes of Devonian Bryozoa from the Traverse formation of Michigan (164874, exchange).

*Museum of Zoology:* (Through Dr. C. L. Hubbs) 9 fishes collected by H. A. Carter in Georgia in 1941–42 (163839, exchange).

MIDDLEKAUFF, Capt. WOODROW W., Fort McPherson, Ga. (See under War Department Laboratory, Fourth Service Command.)

MILES, CECIL, Mariquita, Colombia: 54 fishes from Colombia. (164486, 165341). (See also under Escuela Superior de Agricultura Tropical.)

MILLE, Rev. Father LUIS, Manabí, Ecuador: 5 plants from Ecuador (165148).

MILLER, GERRIT S., Jr., Washington, D. C.: 1 mole collected by donor at Sandgate, Vt., July 19, 1942 (164878).

MILLER, Mrs. HELEN, New York, N. Y.: 27 etchings and 7 drawings for

special exhibition during March 1943 (164881, loan).

MILLER, Dr. ROBERT C. (See under California Academy of Sciences.)

MILWAUKEE PUBLIC MUSEUM, Milwaukee, Wis.: (Through W. E. Dickinson) 2 Lepidoptera (162519).

MINNESOTA, UNIVERSITY OF, Minneapolis, Minn.: 203 plants, mostly from Minnesota (165234, exchange).

MISSISSIPPI GAME AND FISH COMMISSION, Jackson, Miss.: (Through Fannye A. Cook) 1 wormsnake from Chickasaw County, Miss. (163473); 3 turtles from Mississippi (164149).

MISSOURI BOTANICAL GARDEN, St. Louis, Mo.: 1,754 plants from Panama and the Western United States (163380, 163381, 163636, 163844, 164339, 164373, 165390, exchanges).

MITTLEMAN, M. B., Brooklyn, N. Y.: 9 small mammals and 1 owl collected in Indiana (163755, 164098).

MOECK, ARTHUR H., Milwaukee, Wis.: 10 Lepidoptera (163064).

MOLDENKE, Dr. HAROLD N., New York, N. Y.: 28 grasses from the Western United States (164502, 164524, 164635).

MONNING, OSCAR E., Fort Worth, Tex.: 1 slice of the Somerville County, Tex., pallasite (164409, exchange).

MONSANTO CHEMICAL CO., St. Louis Mo.: 1 "Saflex" plastic raincoat made of cloth coated with vinyl acetal safety glass plastic, a substitute in this application for rubber (165003).

MONTGOMERY, ARTHUR, New York, N. Y.: 3 specimens of microlite from the Harding mine, Embudo, N. Mex.: (164333, 164718).

MOORE, Dr. RILEY D., Washington, D. C.: A druggist's oil bottle with lipped stopper for pouring heavy oil and a cap to protect the stopper from dust (164056). (See also under Dr. Hugh M. Fraser.)

MORITZ, Dr. C. E., Washington, D. C.: 18 mollusks, representing 5 species from Puerto Rico, and 2 isopods (163822, 163855).

MORRISON, B. Y. (See under U. S. Department of Agriculture, Bureau of Plant Industry.)

MORTON, C. V., Washington, D. C.: 450 plants from Eastern United States (164679).

MUESEBECK, C. F. W. (See under U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine.)

MURPHY, Dr. R. C. (See under American Museum of Natural History.)

MURRAY, DONALD M., Co., INC., New York, N. Y.: 28 specimens of tourmaline, quartz, and other minerals from Minas Geraës and Bahia, Brazil, and 1 quartz specimen from Trinidad (164326).

MURRAY, WHITEMARSH A., Washington, D. C.: 1 pair of beaded doeskin moccasins originally presented by a Modoc Indian to Americus Davis, grandfather of the donor (164586).

MUSEO DE LA PLATA, La Plata, Argentina: (Through Dr. Ángel L. Cabrera) 41 plants from Argentina (163471, exchange).

MUSGRAVE, M. E.: (Through Ernest P. Walker) 1 shrew collected at Columbine Cottage, near Alpine, Ariz., 1942 (163979).

MUSGRAVE, PAUL N., Huntington, W. Va.: 9 beetles from the Philippine Islands (164303); 6 dipterous larvae (164396); a small collection of insects, including 2 larvae (164830); 1 water mite collected in West Virginia (165074).

NAGY, STEPHEN, Washington, D. C.: Gregorian type telescope made by Dolland, London, said to date from about 1732 (164348, loan).

NAIRN, JOHN J., Cimarron, N. Mex.: 1 Hudsonian godwit (163173).

NATIONAL ASSOCIATION OF WOMEN ARTISTS, INC., New York, N. Y.: 35 prints comprising the traveling exhibition of prints by the Association for special exhibition, June 1 to 27, 1942 (165380, loan).

NATIONAL GEOGRAPHIC SOCIETY, Washington, D. C.: Original painting of a comet passing the Washington Monument, by Charles Bittinger, National Geographic Magazine, July 1939 (164857, loan); (through Maj. Gen. A. M. Patch) fishes, mollusks, marine invertebrates, insects, echinoderms, reptiles, mammal, from the Island of New Caledonia, South Pacific (165280).

NATIONAL LIVESTOCK AND MEAT BOARD, Chicago, Ill.: A collection of specimens illustrating the subject of nutrition and health (165306).

NATIONAL PROCESS CO., INC., New York, N. Y.: 12 war posters (6 subjects with duplicates), 1 copy of magazine *Steel Horizons*, 1 lithographed portrait of General MacArthur, and 4 lithographs of battleships (2 subjects with duplicates) (163800); 1 photomechanical reproduction in offset lithography of a water color, "Diamond Head, Hawaii," by Fred J. Hoertz (164588).

NATIONAL SPELEOLOGICAL SOCIETY, Washington, D. C.: 2 bats, collected by Don Black at Maryville College Campus, Tenn., on June 19, 1942 (163498); (through W. J. Stephenson) 1 bat collected by the Society in Tony's

Cave near Blacksburg, Va., September 9, 1942 (163981); 1 fish from Torey Cave, near Blacksburg, Va. (164035).

NATURAL HISTORY MUSEUM, San Diego, Calif.: (Through W. P. Medlar) 2 moths, both paratypes (163873).

NAVY DEPARTMENT, U. S.: 1 war poster and 1 duplicate (164835); (through Lt. Robert L. Parsons) 31 photographs, "Our Navy in Action," exhibited in foyer of Natural History Building of the National Museum during April 1943 (165110, loan).

*Bureau of Ships:* A collection of barnacles from a ship operating off the coast of Colombia (163527); wood samples of angelino, balsamo, caoba, and jabillo from Venezuela (163858); wood samples of cuipo from Canal Zone (164254); wood specimens of balsa, Spanish cedar, and moho from Guatemala and light-weight tupelo gum from Louisiana (165447); (through John Kuenzel) wood sample of barriguda from Brazil (163501); samples of 3 woods from Yaracuy Province, Venezuela (163533).

*Incentive Division:* 5 war posters (industrial incentives) (164870).

*Naval Research Laboratory:* (Through Dr. Samuel E. Pond) Approximately 470 marine mollusks and a test plate with incrustations from Beaufort, N. C., and 1 vial of barnacles from Woods Hole, Mass. (163435).

*Recruiting Bureau*, White Plains, N. Y.: 6 Navy recruiting posters (163599).

NEBRASKA, UNIVERSITY OF, *Department of Botany*, Lincoln, Nebr.: (Through Prof. Elda R. Walker) 1 plant from Nebraska (164158).

NEEDHAM, Dr. PAUL R. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

NELSON, Prof. AVEN. (See under University of Wyoming.)

NELSON, ELIAS, Yakima, Wash.: 1 plant from Washington (164212).

NETTING, M. GRAHAM. (See under Carnegie Museum.)

NEW YORK BOTANICAL GARDEN, New York, N. Y.: 1,546 plants from Bolivia, New Guinea, and Florida (161966, 165168, 165218, exchanges).

NEW YORK STATE COLLEGE OF FORESTRY, Syracuse, N. Y.: 63 woody plants (163397, exchange).

NEW YORK STATE MUSEUM, Albany, N. Y.: 95 plants from New York (164955, exchange).

NEWCOMBE, Dr. CURTIS L., Williamsburg, Va.: 3 crabs from Queens Creek, Va. (165183).

NICHOLS, JOHN T. (See under American Museum of Natural History.)

NICOLAY, ALAN S., Upper Montclair, N. J.: 33 beetles (164724).

NOLAN, Dr. T. B., Washington, D. C. (See under U. S. Department of the Interior, Geological Survey.)

NORRIS, ROBERT, Tifton, Ga.: 9 bird skins (164810).

NORTH AMERICAN AVIATION, INC., Inglewood, Calif.: 1 war poster and 1 duplicate (164814).

NORTON Co., Worcester, Mass.: An exhibit of abrasive products showing the manufacture and use of manufactured abrasives, 178 specimens (162775).

NUTTING, GEORGE HALE, Seattle, Wash.: 1 bookplate (165043).

OBERLIN COLLEGE, Oberlin, Ohio: 60 plants from Florida and Ohio (164944, exchange).

OEHLER, CHARLES, Cincinnati, Ohio: 9 beetles (159788).

OFFICE OF WAR INFORMATION, *Bureau of Publications and Graphics*, Washington, D. C.: 11 war posters and duplicates (164595, 164824, 165236).

OGLE, Mrs. DORA G. (See under Josepha Whitney.)

O'HARA, Mrs. MAYFRED L., Waltham, Mass.: 2 basketry hats of the Bontok-Igorot, obtained by donor at the Seattle Exposition in 1909 (164912).

O'LEARY, Father A. (See under Georgetown University.)

OLMSTED, Dr. A. J., Washington, D. C.: 2 Mediobrome prints by Misonne, "Paysage" and "Village Flamand" (165248).

OPTICAL RESEARCH, INC., Long Island City, N. Y.: 1 set of 15 contact lenses, with a glass corneal central section and a plastic scleral rim, and 1 set of 12 contact lenses made entirely of transparent plastic (plexiglas), for addition to the collection of ophthalmic lenses (164336).

OSBORN MANUFACTURING Co., Cleveland, Ohio: (Through M. C. Pecsok) A double exhibition panel containing 72 industrial brushes, photographs, and labels, telling the story of power-driven brushes used in industry (84 specimens) (164984).

OSMENT, Capt. WILLIAM, Hollywood, Fla.: 5 shells from Florida (164178).

OTOYA, Dr. FRANCISCO J., Bogotá, Colombia: 46 scarabaeid beetles from Colombia (164945). (See also under Instituto de Ciencias Naturales.)

OUTDOOR ADVERTISING INCORPORATED, New York, N. Y.: 10 billboard war posters (miniature) (164237).

PACKARD, RALPH G., Morristown, N. J.: Collection of firearms, swords, and daggers, illustrating the history of such weapons from the 15th to the 20th century, 228 specimens (164794).

PALMER, Mrs. DOROTHY K., Habana, Cuba: Collection of Tertiary Foraminifera and Echinoidea from Camagüey Province, Cuba (163580).

PALMER, Dr. T. S., Washington, D. C.: 1 bat collected in Washington, D. C., by donor January 2, 1943 (164879).

PANAMA CANAL, THE, Ancon, Canal Zone: (Through Dr. R. La T. Cavenaugh) 1 helminth from a cockroach (164242).

PAN AMERICAN SANITARY BUREAU, Washington, D. C.: 4 small rodents collected in the endemic plague area in the Province of Tomina, Department of Chuquisaca, Bolivia (164144).

PARKE, DAVIS & Co., Detroit, Mich.: A set of 12 8" × 10" glossy photographic prints with which to illustrate the subject of "Making Typhus Vaccine for the Army" (164335); a specimen of typhus vaccine for the section of pharmacy (165004).

PARODI, Dr. L. R., Buenos Aires, Argentina: 10 grasses (163394).

PARSONS, Lt. ROBERT, Washington, D. C. (See under Navy Department.)

PATCH, Maj. Gen. A. M., Fort Lewis, Wash.: Ceremonial club of serpentine (native *o kono*) originally presented to donor by Henri Naisseline, grand chief of Maré, the southernmost of the Loyalty Islands (165437). (See also under National Geographic Society.)

PATE, V. S. L. (See under Cornell University.)

PAYNE, Mrs. ELIZABETH M., Washington, D. C.: 1 string of cylindrical and discoidal stone beads and jadeite "tiger" head pendant found on the Bay Islands or adjacent mainland of Honduras by A. W. Payne (164813).

PEARSE, Dr. A. S., Durham, N. C. (See under Donald P. Gordon.)

PECK, Dr. RAYMOND E., Columbia, Mo.: Paratypes of 22 species of Lower Cretaceous crinoids from Texas (163468).

PECSOK, M. C., Cleveland, Ohio. (See under Osborn Manufacturing Co.).

PEDERSEN, ELMER O., South Bend, Wash.: (Through Dr. Kelshaw Bonham) 2 sharks' teeth collected by donor August 28, 1936, in Willapa Bay, Wash., near North River (163016).

PENNAK, Prof. ROBERT W., Boulder, Colo.: 2 slides of Mystacocarida (Crustacea) representing a new order (164124).

PERKINS, JOHN U., Washington, D. C.: "Solograph" stereo camera, 2 R. R. lenses, and 3 plateholders (163438).

PERRY, Dr. STUART H., Adrian, Mich.: 1 individual meteorite of the Modoc, Kans., fall (4,640 grams) (164387).

PETERS, JAMES L., Cambridge, Mass. (See under Harvard University, Museum of Comparative Zoology.)

PETRIDES, GEORGE, Washington, D. C.: 1 horned grebe collected near Fairfax Court House, Fairfax County, Va. (164677).

PFAUDLER, Co., Rochester, N. Y.: 1 section of 2-inch iron pipe enameled inside with resistant glass (164689).

PHAIR, A. W. A., Lillooet, British Columbia: Small collection of miscellaneous insects from British Columbia. (159890).

PHILADELPHIA CHILD HEALTH SOCIETY, Philadelphia, Pa.: 1 set of 8 "Vegetables for Victory" charts for the diet exhibit of the Section of Public Health (163306); 12 8½" × 10¼" food value charts for use in the diet exhibit of the Section of Public Health (164593).

PHILADELPHIA ZOOLOGICAL GARDEN, Philadelphia, Pa.: (Through Freeman M. Shelly) 1 elephant skeleton (164910).

PHILIPPI, R. A., Santiago, Chile: 14 skins of Chilean sparrow (164389).

PHOENIX TRIMMING Co., Chicago, Ill.: 1 specimen each of cotton and Nylon webbing used in the "harness" connecting the aviator to his parachute (163630).

PIGMAN, G. R., New York, N. Y.: 66 pictorial photographs for special exhibition March 1 to 28, 1943 (164861, loan).

PILSBRY, Dr. H. A. (See under Academy of Natural Sciences of Philadelphia.)

PIRNIE, MALCOLM, Jr., Whitehorse, Yukon. (See under Federal Security Agency.)

PITTIER, Dr. H., Caracas, Venezuela: 729 plants from Venezuela (163864, 164290, 165264).

PITTSBURGH STEAMSHIP Co., Cleveland, Ohio: Plans of Great Lakes steamships, the whaleback steamer *Samuel Mather*, 1892, and the steamship *A. H. Ferbert*, 1941; 10 prints (163402).

POLYGRAPHIC Co. OF AMERICA, New York, N. Y.: 1 war poster (163785).

POND, Dr. SAMUEL E., Washington, D. C. (See under Navy Department, Naval Research Laboratory.)

POND, WALTER F., Nashville, Tenn.: 2 specimens of coral from the Ordovi-

cian of northwest Smith County, Tenn. (165259).

PONTON, G. M., St. Augustine, Fla.: (Through Dr. C. Wythe Cooke). About 43 Tertiary echinoids and 1 Tertiary mollusk from the Taylor County rock pit near Mayo, Suwannee County, Fla. (165019).

POPULAR PHOTOGRAPHY, Chicago, Ill.: 99 salon prints: 4th annual salon of prize winners (165219, loan).

PORTER, Dr. CARLOS E., Santiago, Chile: 2 Crustacea from Chile (159683); 1 mollusk, 1 hermit crab, and 23 insects (163115).

POST OFFICE DEPARTMENT, U. S.: 7 sets of specimen stamps, 779 specimens, received from the International Bureau and described in the bulletins of that Bureau (163992, 164219, 164503, 164663); 3 copies of each of the following U. S. postage stamps: 3-cent Kentucky Statehood commemorative stamp; 3-cent Win-the-War stamp, 5-cent China commemorative stamp, 9 specimens (163565); postage stamps of Ceylon, the Bahamas, Nyasaland, Gibraltar, and the United Kingdom, 8 specimens (164707); 3 copies of the United Nations 2-cent commemorative postage stamp (164862); 7 postage stamps of the Soviet Union (164938); 3 1-cent Four Freedoms commemorative stamps (164979); 2 Soviet 30-kopek postage stamps—"All for War"–"All for Victory" and "Partisans" (165007); 1 specimen each of the following stamps: Newfoundland, 30 cents; Tonga Island, 2s6d and 5s; Cyprus, 1½ piastre; Malta, ½d, 1d, 1½d, 2d, 2½d, and 3d (165117); 1 specimen each of the following postage stamps received from the Government of Yugoslavia in London: Royal Commemorative (March 27, 1941–1943), 2, 3, 5, and 10 dinars (165122); 1 Soviet 5-kopek stamp, "Industrialization," commemorating 25th anniversary of Russian October Revolution (165270); Soviet 45-kopek postage stamp of the War Series (165339).

POTOMAC APPALACHIAN TRAIL CLUB, Washington, D. C.: 204 trail photographs for special exhibition during March 1943 (164915, loan).

POTTER, W. B., Fullerton, Calif.: Glass token of the presidential campaign of 1840 (165241).

POWELL, Prof. THOMAS E., Elon College, N. C. (See Carolina Biological Supply Co.)

PRICE, JOHN W., Lancaster, Pa.: 10+ amphipods and 1 isopod from a stream at Bellevue, Pa. (164714).

PRINCETON MUSEUM OF ZOOLOGY, Princeton, N. J.: Type specimen of bird (164527, exchange).

PROCTOR, GEORGE R., Marietta, Ohio: Fern from Ohio (164100).

PUFFER, CLARENCE C., West Bridgewater, Mass.: 314 mollusks from Florida (165425).

RALEIGH, B. JEAN, Washington, D. C.: 2 cups and 3 saucers of late 19th century hard paste porcelain, made in Copenhagen, Denmark (164073).

RAMSAY, Mrs. HELEN SLATER, Dalton, N. Y.: (Through Hon. James M. Mead) Pair of knee buckles worn by Sir Richard Nichols (165417).

RANCHO SANTA ANA BOTANIC GARDEN, Anaheim, Calif.: (Through Dr. Carl B. Wolf) 3 plants from California (164657, exchange).

RANEY, EDWARD, Ithaca, N. Y.: 20 crayfishes, 28 fresh-water mollusks, and 4 vials of insects (164384).

RAPP, F. A., Washington, D. C.: Collection of minerals from Amelia, Va. (164372, exchange).

RAPP, WILLIAM F., Jr., Chatham, N. J.: 4 small mammals collected at Chatham (163859); 23 beetles (164055).

RASETTI, Dr. FRANCO, Quebec, Quebec: 59 Cambrian and Canadian fossils from Levis, Quebec (164479); 10 brachiopods and 22 trilobites from the Levis conglomerate and 26 specimens of Lower Cambrian trilobites and 2 casts of types from east of Levis (165021).

RAYNOLDS, EDWARD F., Central Valley, N. Y.: 61 pictorial photographs for special exhibition during June 1943 (165273, loan).

R. C. A. MANUFACTURING CO., Camden, N. J.: 16 war posters, "Beat the Promise" (164349).

READING CO., Philadelphia, Pa.: (Through I. L. Gordon) 1 girder from an iron-truss railroad bridge designed, built, and erected by the Philadelphia & Reading Railroad in 1845 (164162).

REED, Dr. S. ALBERT (deceased), Locust, N. J.: (Through Latham G. Reed) The first full-size Reed propeller, D–1, made under Dr. Reed's direction and successfully tested in flight August 30, 1921 (163229).

REED, LATHAM G. (See under Dr. S. Albert Reed.)

REHBERGER, A. C., Chicago, Ill.: A commercial model of Douglas DC–3 (c. 1937–1942) transport plane marked "Super Mainliner" "United Air Lines" mounted on a gray metal

base with map of the United States (164133).

REHN, Dr. E. E., Columbus, Ohio: 175 early Devonian fossils from the Huntersville chert of West Virginia and Virginia (163197).

REHN, J. A. G. (See under Academy of Natural Sciences of Philadelphia.)

REID, EARL D., Washington, D. C. (Specimens collected jointly with Master James B. Schultz): 67 sharks' teeth collected by donors at Randall Cliffs and Scientists' Cliffs, Md. (165109).

REINHARD, Dr. E. G., Washington, D. C.: 29 amphipods from Frenchman Bay, Maine (163371).

REINOSKY, FRANK, Rampart, Alaska: 1 dorsal vertebra of mammal from Rampart (163610).

RESSER, Dr. C. E. (See under Smithsonian Institution, National Museum.)

REVENUE CAMERA CLUB, Washington, D. C.: 60 salon prints, exhibited August 1942 (163549, loan).

RHOADES, WILLIAM, Indianapolis, Ind.: 5 Paleozoic corals from the Ohio Valley (163935, exchange).

RHODE ISLAND DEPARTMENT OF AGRICULTURE, *Office of Entomology and Plant Industry*, Kingston, R. I.: (Through Cedric C. Jennings) 5 beetles (163648).

RHOKANA CORPORATION, LTD., Kitwe, Northern Rhodesia: 1 lot of carrollite from Rhokana, Northern Rhodesia (165253).

RICHARDS, DONALD, Chicago, Ill.: 22 mosses from Plummers Island, Md. (164347).

RICHARDSON, Mr. (address unknown): 3 multiple tubular wick lighthouse lanterns of brass and steel in use about 1860 (164954).

RICKARD, JOHN G., Atlantic City, N. J.: Bronze half-anna piece of India, struck in 1942 (163825).

RIGGS, WILLIAM A., Little Rock, Ark.: 2 specimens of cinnabar ore with dickite from U. S. Mercury Co.'s mine, Pike County, Ark. (163429).

RILEY, J. H. (deceased). (See under Smithsonian Institution, National Museum.)

RITCHER, Dr. PAUL O. (See under University of Kentucky.)

ROBERTS, Prof. J. H., University, La.: 14 miscellaneous insects (164533).

ROCHESTER, UNIVERSITY OF, *Biological Laboratories*, Rochester, N. Y.: (Through Dr. Richard H. Goodwin) 20 plants from New York (163529, exchange); 21 plants from New Mexico (165441, exchange).

ROEBLING FUND, Smithsonian Institution: 2 tektite specimens from Georgia (158576); a group of pyrolusite crystals from Boston Hill mine, near Silver City, N. Mex. (163036); 9 meteorites: Abernathy and Sanderson, Tex.; Atlanta, La.; Aurora, N. Mex.; Hardwick, Minn.; and Brewster, Garnett, and Otis, Kans.; and Indianola, Nebr. (164199); 1 specimen of Harrisonville, Mo., meteorite (163368); 1 aquamarine crystal from Spitskopje, Africa (163412); a specimen of nephrite from Lander, Wyo., and one of fergusonite from Suppington, Mont., and 9 other minerals (163457); 1 large crystal of scheelite from Moctezuma, Sonora (163560); 1 specimen each of apophyllite, analcite, and heulandite from Benton County, Oreg. (163860); 2 aphrosiderite pseudomorphs after almandite and a good matrix specimen from Michigan (164584); 1 specimen of cinnabar crystals from Jefferson County, Oreg. (164585); 1 block of "bird's eye" quartz from Roseburg, Oreg. (164815); a specimen of sahlinite from Sweden and one of ardealite from Transylvania, Rumania (165431); 9 chrysoberyl crystals from near Collintina, Esperito Santo, Brazil, 1 phenacite group from Paricicaba, Minas Geraes, Brazil, and 1 tourmaline crystallized group from Figueira, Minas Geraes (165468).

ROGERS, EDMUND B. (See under U. S. Department of the Interior, National Park Service.)

ROGERS, KELLOGG, STILLSON, INC., New York, N. Y.: 4 war posters used as war production incentives (164135).

ROHRER, W. M., Washington, D. C.: 1 catbird, 1 woodthrush (165193).

ROOSEVELT, Col. KERMIT, Oyster Bay, N. Y.: (Through Dr. Aleš Hrdlička) Eskimo artifacts collected near Nome, Alaska (164684).

ROSE, Corporal ALEXANDER, New Orleans, La.: 2 mollusks from the Canal Zone and 1 insect (164150).

ROSE, LEWIS SAMUEL, San Francisco, Calif.: 440 plants, mostly from California (163742).

ROSEBOOM, LLOYD E., Baltimore, Md.: 33 slides of mosquitoes, including 31 larval slides and 2 slides containing the dissected holotype (164925, exchange).

ROSENGURTT, BERNARDO, Monzon-Heber, Uruguay: 107 plants from Uruguay (163178, 163236, 163589, 164558, 164947, 165225, 165467).

ROSS, Lt. EDWARD S., Fort Sam Houston, Tex: 9 specimens of mosquitoes (164455); 1 insect, apterous male, not heretofore represented in the Museum collection (164962, exchange); 9 specimens of insects, representing 7 species (164964).

Ross, Dr. H. H., Urbana, Ill.: 3 sawflies (164698). (See also under Illinois State Natural History Survey.)

Ross, Mrs. Wilda S., Santa Barbara, Calif.: 180 ants, representing 20 species (165411, exchange).

Royal Ontario Museum of Archaeology, Toronto, Ontario: Cast of ceremonial club from British Columbia (164420).

Runyon, Robert E., Brownsville, Tex.: 51 plants from Texas (164448).

Rupert, Laurence R., Sardinia, N. Y.: 20 Lepidoptera, representing 2 species by holotype, allotype and paratypes (163595).

Ryder, Dr. Ernest N., Croton Falls, N. Y. (See under Estate of Mrs. Annette R. Ferris.)

Saalfrank, William, Washington, D. C.: 14 invertebrate fossils, including 13 Mississippian brachiopods and 1 Ordovician cephalopod from the vicinity of St. Louis, Mo. (164629).

Sackett & Wilhelms Lithographing Corporation, New York, N. Y.: 5 war posters, 6 duplicates (164351).

St. John, Dr. Edward P., Potsdam, N. Y.: Plant from New York (165301, exchange).

Salter, William E., Washington, D. C.: 3 parasitic isopods (163370); 10 land snails and 12 marine mollusks from Calvert County, Md. (163448); 1 jar of sponges from the beach at Longley's Bluff, St. Marys County, Md. (163808); 1 coprolite containing bird feathers from the Miocene, Calvert formation, Scientists' Cliffs, Calvert County, Md. (164909); 72 mollusks from 42d and Grant Streets, NE., Washington, D. C. (164949).

Samuel, Rev. John, Bay City, Mich.: 1 specimen of Cretaceous ammonite from Montana (163885).

Sarles, E. H., Norwood, Ohio: 2 specimens of conglomerate cemented by fluorescent calcium carbonate from Newton, Ohio (162469).

Savage, Henry G., Leominster, Mass.: 1 specimen of brodrickite from Bolton lime quarry, Bolton, Mass. (164916).

Sawaya, Dr. Paulo, São Paulo, Brazil: 23 aeglas from Brazil (164591).

Saxton, R. N., Arlington, Va.: 1 Virginia rail (163933).

Schaller, Dr. W. T. (See under U. S. Department of the Interior, Geological Survey.)

Scheffer, Dr. Victor B. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

Schmidt, Bertha W., Galesville, Wis.: Chipped stone artifacts collected 7 miles east of Galesville (164243).

Schmitt, J. B., New Brunswick, N. J.: 1 earwig from Summit, N. J. (163561, exchange).

Schmitt, Dr. Waldo L. (See under Smithsonian Institution, National Museum.)

Schroeder, William C., Cambridge, Mass.: 2 parasitic copepods and 11 isopods from Chesapeake Bay (164762).

Schultz, Dr. L. P. (See under Smithsonian Institution, National Museum.)

Schuszler, Alajos, Arlington, Va.: 30 pictorial photographs for exhibition September 1942 (163722, loan); 3 pictorial photographs (163959).

Schwab, E. M., Richmond, Va.: Small collection of miscellaneous insects from Riverview Farm, Norge, Va. (163606).

Schwartzbach, Dr. Saul, Washington, D. C.: A collection of lizards from South Seymour Island, Galápagos Islands, including 2 young land iguanas (165170).

Schwarz, Dr. Ernst, Washington, D. C.: 1 house mouse collected in Arlington, Va., in 1941 (165370).

Schwengel, Mrs. F. R., Scarsdale, N. Y.: 6 marine mollusks from Florida and Fiji (164003); 2 mollusks from Florida (164325).

Scott, Prof. Gayle, Fort Worth, Tex.: (Through Dr. C. Wythe Cooke) 1 vial containing 53 lower Cretaceous echinoids, from Tarrant County, Tex. (164924).

Seagram Distillers Corporation, New York, N. Y.: 10 war posters (163789).

Segerstedt, Prof. Torgny, Göteborg, Sweden: (Through U. S. Department of State) Handkerchief bearing printed design commemorating battles and personages of the American Revolution (164444).

Seibert, R. J., Washington, D. C.: Fish spear and photograph of Choco Indian family from which spear was obtained, Río Truando, Choco Intendencia, Colombia (164433); 6 seeds from Haiti (164977).

Sellards, Prof. E. H. (See under University of Texas.)

Seyfried, Capt. J., Washington, D. C.: 1 octopus taken off west side of South Seymour Island, Galápagos Islands, June 26, 1942 (163388).

Seymour, Dr. Allyn, Seattle, Wash.: 37 mollusks from Rose Harbor on Kunghit Island, Queen Charlotte Islands, British Columbia (165192).

Shannon, R. C., Trinidad, B. W. I.: 1 skin and skull of weeping capuchin from Nariva Swamp, Trinidad, collected by donor in November 1942 (164846).

Shantz, Dr. H. L., Washington, D. C.: 3 specimens of bark cloth from East Africa, and 1 raffia mat from Belgian

Congo, collected by the donor in 1920 (165086); 3 bags woven of fiber from a species of *Raphia;* used for shipping oil palm kernels, collected by the donor, January 26, 1920, at Kindu, Belgian Congo (165440).

SHAPOVALOV, LEO, Stanford University, Calif.: 5 crayfishes (163618); 6 crayfishes from Trinity River, northern California (164020).

SHARP & DOHME, INC., Philadelphia, Pa.: 1 specimen each of North and South American lypholized antisnakebite serum for the antivenin exhibit (163633).

SHECKELL, R. O., East Orange, N. J.: 60 pictorial photographs for special exhibition during April 1943 (165044, loan).

SHELDON-CLAIRE CO., Chicago, Ill.: 30 war posters of the company's "Produce for Victory" campaign (163799).

SHELL OIL CO., Centralia, Ill.: (Through L. M. Clark) 118 lots of samples taken from Devonian limestone from deep wells in Illinois (164105).

SHELLY, FREEMAN M., Philadelphia, Pa. (See under Philadelphia Zoological Garden.)

SHIELDS, Lt. Comdr. EDWARD M., Jacksonville, Fla.: Fern from New York (164922).

SHOEMAKER, E., Brooklyn, N. Y.: 50 miscellaneous insects, mostly beetles, collected on St. George Island, Pribilof Islands (164071); 1 beetle, topotype (165369, exchange).

SIMON, ADOLPHE J. L. (deceased): (Through Louis A. Simon) Silk portrait of Joseph Marie Jacquard (1752–1834) woven on a silk loom with a Jacquard attachment at Lyon, France, in 1839, in memory of this inventor (163814).

SIMON, LOUIS A. (See under Adolphe J. L. Simon.)

SINGER SEWING MACHINE CO., New York, N. Y.: 1 surgical stitching instrument, complete with extra needles and case, and a green felt sampler showing numerous types of surgical suturing (165087).

SKINNER, WILLIAM, & SONS, New York, N. Y.: Navy cap ribbon, new type, letters in gold leaf fused into cut ribbon of acetate rayon (165002). (See also under Jerro Bros.)

SMITH, CHESTER F. (See under Standard Oil Co. of New Jersey.)

SMITH, Dr. HUGH M. (deceased). (See under Thailand Government, Bureau of Fisheries, Bangkok, Thailand.)

SMITH, MAXWELL, Lantana, Fla.: 12 mollusks, including 2 holotypes of new species, from Florida, Panama, and the Philippines (157512).

SMITHSONIAN INSTITUTION, Washington, D. C.: 1 etching, "Back to Earth," by George H. Wright, N. A., associate member print of the Society of American Etchers (164895, deposit); printed poster entitled "The Four Freedoms" (164653, deposit).

*Bureau of American Ethnology:* Archeological materials collected at Tres Zapotes, Tuxtla District, southern Veracruz, during the winters of 1938–39 and 1939–40 by the Smithsonian Institution–National Geographic Society expedition under M. W. Stirling; included are two small lots purchased from San Marcos and Loma de Alonso Lazaro (162682); 14 ethnological specimens originally obtained by C. Spencer from the Payamino Indians, eastern Ecuador, and 3 archeological specimens from excavations along the Napo River in the vicinity of Eden, Ecuador (163712); 1 stone ax blade and 5 bark cloth dance masks collected by Dr. Irving Goldman from the Kobeua (Cubeo) Indians of the Vaupés River Valley, Department of Vaupés, southeastern Colombia (165123).

*Library:* 1 book (164366, deposit).

*National Museum, collected by members of the staff:* Cooper, Dr. G. A., and Dr. A. S. Warthin, Jr.: 2,500 Devonian fossils from Illinois, Missouri, and Iowa, collected during field explorations, August 1 to September 25, 1942 (164417); Foshag, Dr. W. F.: 1 left humerus from zone 12, Miocene, Calvert formation (165020); Gilmore, C. W.: 236 specimens of fossil vertebrates collected by the 1942 paleontological expedition in the Oligocene, Brule division, from Niobrara County, Wyo. (163084); Killip, E. P.: 72 plants from New Jersey (163445); Resser, Dr. C. E.: Casts of 258 type lots of Cambrian and Ordovician fossils from Vermont, Quebec, Newfoundland, and Nevada contained in the Museum of Comparative Zoology, Yale Peabody Museum, Columbia University, and National Museum of Canada (163537); Riley, J. H. (deceased): 80 bird skins, 1 bird skeleton, 7 mammal skins and skulls (163642); Schmitt, Dr. Waldo L.: 1 flyingfish from Aeolian Bay and a small collection of plants from South Seymour Island, Galápagos Islands, collected by Dr. Schmitt in June 1942 (163446); Schultz, Dr. L. P.: Fishes, amphibians, reptiles, mammals, insects, mollusks, bird, crustaceans, algae,

mostly from the Maracaibo Basin, Venezuela, collected in February through May 1942 (161595); 1 fish jaw collected halfway between Scientists' Cliffs and mouth of Parker Creek, Calvert County, Md., from Miocene, Calvert formation, and also 1 fossil sand-dollar (165108); Walker, Dr. E. H.: 297 plants from North Carolina and South Carolina (165378); Watkins, William N.: 1 trunk section, 9 inches in diameter and 3 feet long, of Simon poplar, from the Smithsonian grounds (163581).

*National Museum, obtained by purchase:* 500 moths, butterflies, and beetles collected in New Guinea (160041); 65 birds from Ecuador (162805); 3 casts of fossil apes obtained many years ago but not accessioned heretofore as far as can be determined (163547); 25 mosses (164119); 1 reptile specimen consisting of 14 caudal vertebrae from the Upper Cretaceous of Bollinger County, Mo. (164163); 947 plants from Mexico (164374); a Woodward solar camera No. 968 made about 1877, a clockwork for driving a heliostat; and a hand-driven chain-stitch sewing machine, period of 1866 (164494).

*National Museum, Photographic Laboratory:* 1 Cassegrain camera (164191).

*National Zoological Park:* 5 African antelopes collected by Dr. A. B. Baker in British East Africa in 1909 (head skins only) (163499); 19 bird skeletons and 5 bird skins (163771); 14 mammals (163917); 2 electric eels from South America (164185); 9 skeletons of birds and 2 bird skins (164334); 8 bird skeletons and 1 bird skin (164703); 20 bird skeletons and 4 bird skins (165166); 45 mammals (165232); 12 bird skeletons; 4 bird skins; 2 birds' eggs (165434); 10 mammals (165473).

*Smithsonian War Committee:* 24 war posters (163563).

SMYTH, E. GRAYWOOD, Glen Ellen, Calif.: 4 insects collected in California (164025);

SOHN, J. GREGORY, South Strafford, Vt.: 2 specimens of copper ore from Eureka mine, Corinth, Vt., and Elizabeth Mine, South Strafford, Vt. (164989);

SOMMERMAN, KATHRYN M., Urbana Ill.: 3 insects (164941);

SORENSEN, A., Pacific Grove, Calif.: 1 mollusk from Magdalena Bay on the west coast of Baja California (163353).

SOUKUP, J., S. S., Lima, Peru: 122 plants from Peru (164431, 165414).

SOUTH DAKOTA, UNIVERSITY OF, Vermillion, S. Dak.: Plant from South Dakota (164078).

SOUTHERN BIOLOGICAL SUPPLY CO., INC., New Orleans, La.: 10 crayfishes (109429).

SOUTHWORTH, CHARLES, Thedford, Ontario: 100 Devonian brachiopods from Ontario (164722).

SOXMAN, G. M., Dallas, Tex.: 5 plants from Texas (163454).

SPERRY, D. R., & Co., Batavia, Ill.: 1 wooden filter-press plate and frame (164927).

SPICER, V. D. P., San Francisco, Calif.: 21 mollusks from Midway Island, including 1 type (164192, 165258).

SPRINGER FUND, Smithsonian Institution: 12 Devonian crinoids from Ontario (164701).

STABLER, SIDNEY SNOWDEN, Hyattsville, Md.: 119 specimens of historical pharmaceutical and medical objects used at Roslyn Farm, Brighton, Md., by Henry Stabler and Dr. Augustus Stabler, grandfather and father of the donor (163863).

STALLINGS, DON B., Caldwell, Kans.: 6 Lepidoptera (163596).

STANDARD OIL CO. OF NEW JERSEY, New York, N. Y.: (Through Chester F. Smith) A scale model of the Bayway Unit Polymer Plant for producing high-grade motor fuel and aviation gasoline blending stock (163739, loan).

STANFORD UNIVERSITY, Stanford University, Calif.: Homotypes and paratypes of 31 species of Eocene Foraminifera from the Lodo formation, Fresno County, Calif. (164723, exchange); 585 plants from northern Mexico (164695, exchange); (through Margaret Storey) 2 fishes from Shansho Cano, vicinity of Pevas, Peru, and the Ampiyacu River, vicinity of Pevas, Peru, collected by W. G. Scherer (164631, exchange).

STANLEY-BROWN, Mrs. JOSEPH, Kew Gardens, Long Island, N. Y.: (Through Mrs. Herbert Feis) 261 ethnological objects, mostly from the Aleut and southeastern Alaskan Indian tribes, collected by the donor's husband in 1890–1898 when he was stationed at Dutch Harbor in charge of the Pribilof Island seal fisheries (165342).

STANTON, EDWARD, Douglas, Ariz.: 3 crystals of calcite from 1¼ miles west of Arispe, Sonora (163728); 2 specimens of fluorite from the Governor mine, Socorro County, N. Mex. (164330).

STATE, U. S. DEPARTMENT OF. (See under Prof. Torgny Segerstedt.)

STAUBER, Dr. LESLIE A., Bivalve, N. J.: 10 crabs (164140).

STEARNS, JOSEPH L., Laurel, Md.: 1 plant from North Carolina (164202); 20 common woods indigenous to South Africa (164418); 2 plants from Ontario (164538); samples of 5 woods native to the United States (165439, exchange).

STEBBINS, A. C., Washington, D. C.: 26 pieces of photographic equipment from the studio of donor's brother now deceased (164051).

STEERE, Dr. WILLIAM, Washington, D. C.: 84 plants from Colombia (164781).

STEHLE, Dr. H., Tivoli, Fort-de-France, Martinique: 750 plants from Martinique (165205).

STEJNEGER, Dr. LEONHARD (deceased): (Through Mrs. Leonhard Stejneger) Ornamental snuffbox bearing the registry mark of Bergen, Norway, and originally presented to donor by his grandfather on the occasion of his confirmation (164959).

STEJNEGER, Mrs. LEONHARD, Washington, D. C.: 1 5″ × 7″ Pony Premo Sr. camera; rapid rectilinear lens; two 5″ × 7″ plate holders; 1 Swivel tripod head; 1 4″ × 5″ America Optical Company camera; Waterbury lens, No. 8667 (165187). (See also under Dr. Leonhard Stejneger.)

STEPHENS, Prof. T. C., Sioux City, Iowa: 271 mollusks from Iowa (163683).

STEPHENSON, H. K. (See under Prof. D. C. Stockbarger.)

STEPHENSON, Dr. L. W., Washington, D. C.: 75 fresh-water mussels from Texas, collected by Dr. Stephenson and Marc O. Miller (164419).

STEPHENSON, W. J. (See under National Speleological Society and Prof. Roy J. Holden.)

STERNBERG, GEORGE F., Hays, Kans.: 1 lot of 297 teeth of the pavement-toothed shark from the Niobrara formation and 27 fossil pearls from the Benton and Niobrara formations of Kansas (163772, exchange).

STEVENS INSTITUTE OF TECHNOLOGY, Hoboken, N. J.: (Through Dr. Robert L. Klein) 2 specimens of graphite from Korea and Madagascar (163956).

STEWART, J. C., Berwyn, Md.: An exhibition specimen of conifer log from the Potomac formation near Berwyn, Md. (163538).

STEWART, Dr. R. R., New York, N. Y.: 198 ferns from India (165129, exchange).

STEWART, Dr. W. W., Washington, D. C.: 1 mounted moose head (163900).

STILLINGER, RICHARD C., Moscow, Idaho: 31 plants, mostly from Idaho (164622).

STOCKBARGER, Prof. D. C., Cambridge, Mass.: (Through H. K. Stephenson) 1 specimen of optical fluorite from Madoc, Ontario (163429).

STODDARD, H. L., Thomasville, Ga.: 56 bird skins from Georgia and Florida (164042); 1 hooded merganser (164483).

STOREY, MARGARET. (See under Stanford University.)

STOTTLEMEYER, MARGARET A. R., Washington, D. C.: 1 decorated porcelain pipe bowl, 1 glazed effigy terracotta pipe, and 1 green and copper luster creamer (165299).

STRICKLAND, J. C., Petersburg, Va.: 151 plants from Virginia (163845, 165130).

STRIMPLE, H. L., Bartlesville, Okla.: 11 crinoids and 1 edrioasteroid from the Mississippian of Iowa and Oklahoma (163449); a small collection of Ostracoda and other microfossils from the Pennsylvanian, Hogshooter formation, just north of Ramona, Okla. (163690, exchange).

STUART, W. W., Des Moines, Iowa: A Thomson-Houston electric lamp socket without its housing, c. 1898 (165260).

SWEENEY, FANNY S. (See under Mrs. Kate M. Anderson.)

TACQUIN, Dr. A. J., Safi, Morocco: (Through Ensign Arthur G. Humes) 75 bird skins; 3 mammals (165436).

TANNER, Dr. VASCO M., Provo, Utah: 2 fishes collected July 26, 1942, by Guy L. Hendrix, in stream and big spring, between Preston and Lund, White River Valley, White Pine County, Nev. (164626).

TATE, RALPH D., Seat Pleasant, Md.: 1 albino turtle from near Marlborough, Md. (164665).

TATUM, JAMES A., Alamogordo, N. Mex.: Section of petrified tree trunk from the Sacramento Mountains near Alamogordo (164106).

TEMPLEMAN, Prof. WILFRED, St. John's, Newfoundland: 2 squids from Comfort Bight, Labrador, and 6 ticks, nymphs, and adults of a species of *Ixodes* from Placenta Bay, Newfoundland (162672).

TENNESSEE VALLEY AUTHORITY, Norris, Tenn.: (Through Dr. A. R. Cahn) 4 vials of leeches and 1 vial parasitic copepods, small collection of insects; and 3 parasitic worms from Tennessee (146628); (through Jack S. Dendy) 40+ parasitic copepods (165200); (through Robert A.

Laurence): 25 unique crustaceans and unusual trails presumably from Upper Cambrian strata, at the Douglas Dam, French Broad River, Tenn. (164128).

TEXAS, UNIVERSITY OF, Austin, Tex.: (Through Prof. E. H. Sellards) 1 cast of skull and lower jaws of Triassic reptile from Texas (164030).

THAILAND GOVERNMENT, *Bureau of Fisheries*, Bangkok, Thailand: (Through Dr. Hugh M. Smith) 14 fishes from Thailand (163584, deposit).

THOMAS, Prof. C. A., Kennett Square, Pa.: 1 moth (164278).

TITANIUM ALLOY MANUFACTURING CO., Niagara Falls, N. Y.: Enameled pan showing texture and opacity imparted by zirconium oxide, a replacement material for tin, antimony, and other critical materials; also 5 samples of various zirconium opacifiers and 3 tiles glazed and tinted with zirconium glazes (164457).

TOBIN, GEORGE T., New Rochelle, N. Y.: 12 drypoints, 20 wax-pencil drawings for special exhibition during May 1943 (165237, loan); 11 drypoints of figure subjects from the special exhibition of drypoints and wax-pencil drawings (165475).

TOLMAN, R. P., Washington, D. C.: 2 modern mechanical pencils and 1 old mechanical pen and pencil, with disappearing point arrangement; before 1885 (163382).

TORONTO, UNIVERSITY OF, Toronto, Ontario: (Through Dr. M. W. Bannan): 20 microscope mounts of woods (163656, exchange).

TOWLES, WILL H., Bethesda, Md.: 10 portraits (164239).

TOWNES, Dr. HENRY K., Washington, D. C.: 585 specimens of Ichneumonidae representing 249 species, 214 of which are North American and 35 exotic (163827, exchange); 1 phyllopod from a temporary pond at Takoma Park, Md. (164416).

TRAUB, Dr. HAMILTON P., Beltsville, Md.: 5 plants (163399).

TREASURY, U. S. DEPARTMENT OF THE, *Bureau of the Mint*: 32 United States coins struck at the Denver, Philadelphia, and San Francisco mints in 1942 (164981).

*War Savings Staff*: 53 war posters and 22 assorted booklets and general literature relating to War Savings bonds and stamps (163675, 163715, 163730).

TRESSLER, Dr. WILLIS L., College Park, Md.: 3 slides of Lower Pleistocene Ostracoda from Langleys Bluff, Md. (163875).

TRUMBO, RICHARD, Haymarket, Va.: Airplane receiving set, c. 1917, type SCR 59, made by the Western Electric Co. (164132).

TURPIN, JEAN, Indian Head, Md.: 15 plants from Maryland (165167).

TUTCHINGS, MRS. PATRICIA MACDONALD, New York, N Y.: 7 framed portraits by Pirie MacDonald, "Photographer of Men" (162945).

UBIDIA B., JORGE, Bogotá, Colombia: 9 fishes from Lago de Tota, Boyaca, Cordillero Oriental, Colombia; also crustaceans and insects (164570).

ULLRICH, ELSIE, Philadelphia, Pa.: (Through Mrs. George A. Hatzes) Pink luster coronation cup and saucer with painted medallions of Queen Victoria and her consort, Albert (164848).

ULMER, JOSEPH, Washington, D. C.: (Through John W. McBurney) 1 specimen of gold ore from Larco mine, Santander Province, Colombia (163871).

UNITED AIRCRAFT CORPORATION, East Hartford, Conn.: (Through S. D. Warren Co.) 49 war posters (164005).

U. S. PHARMACOPOEIAL CONVENTION, INC., Philadelphia, Pa.: (Through Dr. E. Fullerton Cook) 1 copy of the Pharmacopoeia of the United States of America, Twelfth Revision (official copy 340), for addition to the collection illustrating the history of United States medical standards (163990).

UNIVERSIDAD AUTÓNOMA DE COCHABAMBA, Bolivia: (Through Dr. Martín Cárdenas) 7 beetles from Bolivia (161931).

UNIVERSITETETS BOTANISKE MUSEUM, Copenhagen, Denmark: 15 plants from tropical America (104053, exchange).

URIBE, Rev. Father LORENZO, S. J., Bogota, Colombia: Plant from Colombia (164828).

UTAH STATE AGRICULTURAL COLLEGE, Logan, Utah: (Through Dr. George F. Knowlton) 27 leafhoppers, comprising 14 species, all named except one, including 23 paratypes (164454).

VALENCIA, Dr. JUAN IGNACIO, Buenos Aires, Argentina: 17 grasses from Argentina (163921).

VAN CLEAVE, Prof. H. J., Urbana, Ill.: 3 slides of paratypes of helminths (164869).

VAN HYNING, Prof. T., Gainesville, Fla. (See under Florida State Museum.)

VAN SANT, ROBERT M., Baltimore, Md. (See under Baltimore & Ohio Railroad Co.)

VARGAS C., Dr. CESAR, Cuzco, Peru: 47 plants from Peru (164383).

VASSALLO, Master CHARLES, Jr., Fair-

field, Conn.: 2 beetles collected in Fairfield (163685).

VAUGHAN, Dr. T. W., Washington, D. C. (See under Dr. Don L. Frizzell.)

VENDITTY, A. M., Washington, D. C.: 1 "Adlake" magazine plate camera 3¼"×4¼" in size (163672, loan).

VICTORIN, Prof. MARIE, Montreal, Quebec: Fern from Cuba (165443).

VINES, ROBERT A., Houston, Tex.: Palm from Texas (163328).

VIRGINIA AGRICULTURAL EXPERIMENT STATION, Blacksburg, Va.: 35 mice, 9 skins and skulls, remainder skulls only, taken at Stuart, Patrick County, and at Staunton, Va., December 1941 and January 1942 (163643).

VOGT, WILLIAM, Washington, D. C.: 2 Inca terns (164388).

VON DAUR, Mme. BLANCHE SMEDLEY, New York, N. Y.: Parasol of Chantilly lace and mother-of-pearl handle originally acquired in Paris, France, in 1869, and 2 lace handkerchiefs formerly belonging to the mother and to the sister of donor (165403).

VOSPER, Mrs. HANNAH FIELD, Philadelphia, Pa.: 1 length of single-width homespun carpeting handwoven in a colorful stripe pattern, using tied and dyed wool warp and cotton weft, by the donor's mother, Hannah (Johnston) Field, at the Teeter Farm near Smithville, Ontario, prior to her marriage in October 1852 (164147).

WADE, Mrs. BERTHA, Washington, D. C.: A Confederate flag and canteen of the period of the Civil War (165001).

WADE, DOUGLAS E. (See under U. S. Department of the Interior, Fish and Wildlife Service.)

WAGNER, W. H., Sr., Washington, D. C.: 310 Lepidoptera (163390).

WAKE, RALPH WILLIAM, Washington, D. C.: Projectile points, blades, and rejectage found in June 1925, at New Alexandria, east of Mount Vernon Memorial Highway about ¾ mile south of Hunting Creek Bridge and just above the Potomac River, Fairfax County, Va.; also 2 points from District of Columbia (164624).

WALKER, Dr. E. H., Washington, D. C.: 764 plants mostly from Eastern United States (165373). (See also under Smithsonian Institution, National Museum.)

WALKER, Prof. ELDA R. (See under University of Nebraska.)

WALKER, ERNEST P., Washington, D. C.: 1 mouse collected in Larimer County, Colo., in 1939, by Lt. W. Bart Greenwood (163874); 1 hamster (165372). (See also under M. E. Musgrave.)

WALLEY, G. STUART, Ottawa, Ontario. (See under Canadian Government, Department of Agriculture.)

WAR DEPARTMENT, U. S.:

*Adjutant General's Office:* 32 booklets with information for recruitment and 23 war posters (163798).

*Bureau of Public Relations:* 20 war posters, 2 copies each of 10 posters (163677).

*Headquarters, Services of Supply:* 11 war posters (163676).

*Laboratory, Fourth Service Command,* Fort McPherson, Ga.: (Through Capt. Woodrow W. Middlekauff) 11 specimens of mosquitoes, representing 6 species, all in the larval stage (165024, exchange); 5 flies (165082).

*Office of the Quartermaster General:* Silver Star, Soldier's Medal, and Distinguished Flying Cross, with accessory ribbons and lapel buttons (163189); skin and skull of Kidron, General Pershing's horse, which died on October 10, 1942, at Front Royal, Va. (164991).

*U. S. Engineer Office:* Distal end of femur of sauropod dinosaur from Potomac formation from McMillan Reservation, Washington, D. C. (163793). (See also under Julius Lauer.)

WARE, Dr. R. E., Clemson, S. C.: 1 fresh-water jellyfish (163857); 30+ ostracods (165257).

WARREN, Mrs. FISKE, Boston, Mass.: An extremely fine specimen of Lamarck's *Spondylus,* a marine bivalve mollusk from the Moluccas (164232); 37 marine shells from the Indian Ocean and 30 land shells from the Philippines, the Moluccas, and Japan (165191).

WARREN CO., S. D., Boston, Mass.: 12 war posters and 1 poster booklet (163991). (See also under United Aircraft Corporation.)

WARTHIN, Dr. A. S., Jr. (See under Smithsonian Institution, National Museum.)

WASHINGTON, UNIVERSITY OF, Seattle, Wash.: 122 plants (163815, exchange).

WATKINS, WILLIAM N. (See under Smithsonian Institution, National Museum.)

WEIDENER, REYNOLD H., Grand Rapids, Mich.: Mezzotint, "Thunderhead Crest," by the donor (163585).

WELLS, J. ROBERT, La Oroya, Peru: 1 microcephalic skull without lower jaw from Chilca, Peru (164514).

WENZELL, E. V., Baltimore, Md. (See under The Camera.)

WEST VIRGINIA UNIVERSITY, Morgantown, W. Va.: 1 plant (163051, exchange).

WETMORE, Dr. ALEXANDER, Washington, D. C.: 41 coins, tokens, and paper currency (163931); 1 house mouse collected in the National Museum by the donor on January 14, 1943 (164859); 1 starling (165186); 1 young robin (165435).

WHARTON, J. R., Roseburg, Oreg.: 1 polished piece of "bird's-eye" quartz, 1 specimen of pyrite-coated pebbles in conglomerate, and 1 specimen of "Teredo wood" from Roseburg, Oreg. (164422).

WHEELER, Col. JAMES A., Washington, D. C.: A collection of 34 weapons, a chain cuirass, and brass helmet collected by donor in 1900 from the Moro on the island of Mindanao; Filipino bamboo flute, bamboo pipe, and riding paraphernalia; and an antique gun purchased in Japan (165325).

WHEELER, WILLIAM M., Jr., and WHEELER, PAUL, Colebrook, Conn.: 6 trap-door spiders collected in Nashville, Tenn. (165023).

WHERRY, Dr. EDGAR T., Philadelphia, Pa.: Fern from vicinity of Washington, D. C. (164034); plant from Florida (164838).

WHIPP, CHARLES, Washington, D. C.: 2 wax cylinder phonograph records dating from about 1905 (163379).

WHITE, Dr. LEONARD A., Washington, D. C.: A Canton, China, stoneware hot-water mess plate and a Queen Anne pewter tobacco box (164953); flint-lock fowling piece and powder-horn (165184).

WHITLOCK, Mrs. BRAND (deceased): Diamond and platinum bracelet presented to Mrs. Brand Whitlock by Elizabeth, Queen of the Belgians (163768, bequest).

WHITNEY, JOSEPHA, Darien, Conn.: (Through Mrs. Dora G. Ogle) 1 lithograph by Fra Pagliusto of a self-portrait by Bartolomeo Pinelli (163876).

WICKERSHAM, J. Y., Ontario, Calif.: "Long" white gauze shawl, woven of wool obtained from the under fleece of the Tibetan goat, decorated with woven silk stripes and a block-printed Oriental pattern somewhat modified by French influence, similar to a type which originated about 1845 at Lyon, France (164829).

WIGGLESWORTH, Dr. W. B. (See under London School of Hygiene and Tropical Medicine.)

WILKISON, Mrs. F. W., Indiantown, Fla.: (Through Horace Atwood). Wooden ladle made and used by the Seminole Indians of the Florida Everglades (163835).

WILLIAMS, JOSEPH L., Lincoln University, Pa.: 1 lot of nematodes and 1 insect (163314); 36 hymenopterous parasites (163502); 1 insect (165198).

WILLIAMS, Dr. J. S., Logan, Utah: 15 brachiopods from Lower Carboniferous rocks of Utah (164004).

WILSON, L. WAYNE, Moorefield, W. Va.: 6 mollusks from W. Va. (161194).

WINGER, Prof. RICHARD N., Laramie, Wyo.: Type of helminth (163077).

WISCONSIN, UNIVERSITY OF, Madison, Wis.: (Through Prof. N. C. Fassett) 115 plants, mostly from Wisconsin (164338, exchange).

WOLF, Dr. CARL B. (See under Rancho Santa Ana Botanic Garden.)

WOLFE, Col. L. R., Washington, D. C.: 8 bird skins and the head of a bird from Eritrea, a locality hitherto unrepresented in the Museum collections (163796).

WOODSON, Dr. ROBERT E., Jr., St. Louis, Mo.: 138 plants from Panama (162762, 164406, 164213).

WOOTON, Dr. E. O., Arlington, Va.: Specimen of slime-mold from Virginia (164341).

WORKS PROJECTS ADMINISTRATION, Washington, D. C.: Archeological specimens obtained between 1937 and 1940 at Irene Mound site, Chatham County, Ga., collected by the WPA under sponsorship of the Chatham County Commissioners and the Savannah Chamber of Commerce (160819).

*New York City War Service Project*, New York, N. Y.: 20 war posters (163786).

WRIGHT, Prof. A. H., Ithaca, N. Y.: 2 salamanders from New Mexico (163918).

WYATT, ALEX K., Chicago, Ill.: 42 larvae, representing 11 species (165433).

WYOMING. UNIVERSITY OF, Laramie, Wyo.: (Through Prof. Aven Nelson) 186 plants from Wyoming (163671, exchange).

YALE UNIVERSITY, New Haven, Conn.: Wood samples of 3 species (164928, exchange).

YOLLES, STANLEY F., Trinidad, B. W. I.: 16 mollusks from Cayenne, French Guiana (165408).

ZETEK, JAMES, Balboa, Canal Zone: 200+ isopods from Barro Colorado Island, Canal Zone (164883).

# PUBLICATIONS ISSUED BY THE UNITED STATES NATIONAL MUSEUM DURING THE FISCAL YEAR 1942–43

### REPORT

Report on the progress and condition of the United States National Museum for the fiscal year ended June 30, 1942. 8vo, iii+118 pp. January 1943.

### BULLETINS

Bulletin 180. Fishes of the Phoenix and Samoan Islands collected in 1939 during the expedition of the U. S. S. *Bushnell*. By Leonard P. Schultz. 8vo, x+316 pp., 27 figs., 9 pls. January 20, 1943.

Bulletin 181. The cyclophorid operculate land mollusks of America. By Carlos de la Torre, Paul Bartsch, and Joseph P. E. Morrison. 8vo, iv+306 pp., 42 pls. August 21, 1942.

Bulletin 182. Monograph of the West Indian beetles of the family Staphylinidae. By Richard E. Blackwelder. 8vo, viii+658 pp. 3 figs., 19 maps. January 27, 1943.

### PAPERS PUBLISHED IN SEPARATE FORM

#### FROM VOLUME 28, CONTRIBUTIONS FROM THE UNITED STATES NATIONAL HERBARIUM

Title page, table of contents, and index. Pp. i–xiii, 677–694. December 16, 1942.

#### FROM VOLUME 88 OF THE PROCEEDINGS

Title page, table of contents, and index. Pp. i–viii, 587–615. August 18, 1942.

#### FROM VOLUME 89 OF THE PROCEEDINGS

Title page, table of contents, and index. Pp. i–ix, 583–620. November 28, 1942.

#### FROM VOLUME 90 OF THE PROCEEDINGS

Title page, table of contents, and index. Pp. i–vii, 553–581. December 18, 1942.

#### FROM VOLUME 91 OF THE PROCEEDINGS

No. 3131. Catalog of human crania in the United States National Museum collections: Eskimo in general. By Aleš Hrdlička. Pp. 169–429, fig. 39. August 1, 1942.

No. 3132. The species of *Aegla*, endemic South American fresh-water crustaceans. By Waldo L. Schmitt. Pp. 431–520, figs. 40–64, pls. 25–28. August 18, 1942.

#### FROM VOLUME 92 OF THE PROCEEDINGS

No. 3147. New species of bark beetles (Pityophthorini) from Mexico and Tropical America (Coleoptera, Scolytidae). By M. W. Blackman. Pp. 177–228, pls. 20–23. November 25, 1942.

No. 3148. Osteology of *Polyglyphanodon*, an Upper Cretaceous lizard from Utah. By Charles W. Gilmore. Pp. 229–265, figs. 16–36, pls. 24–26. October 13, 1942.

No. 3149. Notes and new species of Microlepidoptera from Washington State. By J. F. Gates Clarke. Pp. 267–276, pls. 27–32. October 13, 1942.

No. 3150. The genotypes of some of Ashmead's genera of ichneumon-flies. By R. A. Cushman. Pp. 277–289. October 8, 1942.

No. 3151. New Neotropical insects of the apterygotan family Japygidae. By H. E. Ewing and Irving Fox. Pp. 291–299, pls. 33, 34. October 1, 1942.

No. 3152. The fresh-water fishes of Liberia. By Leonard P. Schultz. Pp. 301–348, fig. 37, pls. 35, 36. November 13, 1942.

No. 3153. Mexican herpetological miscellany. By Hobart M. Smith. Pp. 349–395, fig. 38, pl. 37. November 5, 1942.

No. 3154. Revision of the genus *Phloeosinus* Chapuis in North America (Coleoptera, Scolytidae). By M. W. Blackman. Pp. 397–474, pls. 38–41. December 21, 1942.

No. 3155. The Late Cenozoic vertebrate faunas from the San Pedro Valley, Ariz. By C. Lewis Gazin. Pp. 475–518, figs. 39–47, pls. 42, 43. December 10, 1942.

No. 3156. The type species of the genera and subgenera of bees. Grace A. Sandhouse. Pp. 519–619. March 5, 1943.

FROM VOLUME 93 OF THE PROCEEDINGS

No. 3157. The Nearctic species of parasitic flies belonging to *Zenillia* and allied genera. By Wendell F. Sellers. Pp. 1–108. January 19, 1943.

No. 3158. A new fossil reptile from the Upper Cretaceous of Utah. By Charles W. Gilmore. Pp. 109–114, figs. 1–5. December 12, 1942.

No. 3159. Some American geometrid moths of the subfamily Ennominae heretofore associated with or closely related to *Ellopia* Treitschke. By Hahn W. Capps. Pp. 115–151, pls. 1–10. February 24, 1943.

No. 3160. Skeletal remains with cultural associations from the Chicama, Moche, and Virú Valleys, Peru. By T. D. Stewart. Pp. 153–185, pls. 11–18. January 23, 1943.

No. 3161. New marine mollusks from the Antillean region. By Harald A. Rehder. Pp. 187–203, pls. 19, 20. January 20, 1943.

No. 3162. A new pest of *Albizzia* in the District of Columbia (Lepidoptera: Glyphipterygidae). By J. F. Gates Clarke. Pp. 205–208, pls. 21–25. March 9, 1943.

No. 3163. Osteology of Upper Cretaceous lizards from Utah, with a description of a new species. By Charles W. Gilmore. Pp. 209–214, figs. 6–10. January 19, 1943.

No. 3164. The birds of southern Veracruz, Mexico. By Alexander Wetmore. Pp. 215–340, fig. 11, pls. 26–28. May 25, 1943.

No. 3165. New genera and species of bark beetles of the subfamily Micracinae (Scolytidae, Coleoptera). By M. W. Blackman. Pp. 341–365, pls. 29–30. March 22, 1943.

No. 3166. Notes on some barnacles from the Gulf of California. Dora Priaulx Henry. Pp. 367–373, pl. 31. May 3, 1943.

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Dora Priault